UNITED STATES DEPARTMENT OF COMMERCE
OFFICE OF TECHNICAL SERVICES

BIBLIOGRAPHY
OF SCIENTIFIC AND INDUSTRIAL REPORTS

Vol. 8 — February 20, 1948 — No. 8

CONTENTS

CHEMICALS AND ALLIED PRODUCTS....659 - 688, 716 - 742
DRUGS AND PHARMACEUTICALS....659 - 662
AGRICULTURAL CHEMICALS....662 - 663
INORGANIC CHEMICALS....663
MISCELLANEOUS CHEMICALS....663 - 688

ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES....688
ELECTRONICS....688

FOOD AND KINDRED PRODUCTS....688 - 689

INSTRUMENTS (PROFESSIONAL, SCIENTIFIC, AND CONTROLLING)....689 - 691

MACHINERY (EXCEPT ELECTRICAL)....691 - 696, 742 - 743

MEDICAL RESEARCH AND PRACTICE, INCLUDING CLINICAL APPLICATION OF DRUGS AND PHARMACEUTICALS....696 - 700

METALS AND METAL PRODUCTS....700 - 707, 743

PHYSICS....707 - 710
GENERAL....707 - 710

TEXTILES AND TEXTILE PRODUCTS....710, 743 - 744

TRANSPORTATION EQUIPMENT....711 - 715
AERONAUTICS....711 - 715

PATENTS....716 - 744
CHEMICALS AND ALLIED PRODUCTS....716 - 742
MACHINERY (EXCEPT ELECTRICAL)....742 - 743
METALS AND METAL PRODUCTS....743
TEXTILES AND TEXTILE PRODUCTS....743 - 744
MISCELLANEOUS....744

TECHNICAL ORDERS....744 - 745
MISCELLANEOUS....744 - 745

REGISTER OF PATENTS AVAILABLE FOR LICENSING OR SALE....746 - 750

TRANSLATIONS....750

PUBLICATIONS ISSUED BY OFFICE OF TECHNICAL SERVICES....751 - 752

* Indicates that reports in the BIOS, CIOS and FIAT series are deposited in the Library of Congress Depository Libraries. For a complete list of these libraries, see page facing page 1, volume 5, of this Bibliography.

In addition to the indexes described on the back cover of this Bibliography, the Office of Technical Services has published the following reference works:

PB L 81500. HOLLOWAY, O. WILLARD and ISAAC, OLIVER B. Classified list of OTS printed reports: A list of reports on German and Japanese technology, prepared by American investigators, which are available in printed form from the Office of Technical Services. Oct 1947. 59 p. Price: 75¢

PB L 78000. LOWRY, W. KENNETH. OSRD reports: Bibliography and index of declassified reports having OSRD numbers. Jun 1947. 105 p. Price: 75¢

PB L 58101-R. SWIFT, GRACE. Government document series, analyzed by Office of Technical Services. Rev. Nov 1947. 45 p. Price: 25¢

PB L 79322. SWIFT, GRACE and ORNE, JERROLD. Subject headings for technical libraries. Jun 1947. 167 p. Price: $1.50

PB L 81803. U. S. OFFICE OF TECHNICAL SERVICES, TECHNICAL INDUSTRIAL INTELLIGENCE DIVISION. Reports resulting from the investigation of German technology, 1945-1946, and index of personnel. May 1947. 207 p. Price: $5.25

ERRATUM:

v. 1, p. 580 PB 7761 contains 27 pages and should be priced as follows: Microfilm-$0.50 - Photostat-$2.00

Drugs and Pharmaceuticals

* PB L 85157. FROMHOLZ, A. STANLEY. Process for the manufacture of beta-oxynaphthoic acid, sodium salt. (FIAT Final Rept 1308). n. d. 11 p. Price: Mimeo-$0.50
The process is well covered in the translation of the process and description of the flowsheet submitted by the plant manager at the Offenbach plant of the I.G. Farbenindustrie.

PB L 74799. I. G. FARBENINDUSTRIE A.G. Reports on drugs and pharmaceuticals. (FIAT Microfilm Reel H 95, Frames 4695-5099 and 6100-6707) 1938-1944. 1004 f.
Price: Microfilm-$6.00 - Enlargement print-$100.50
This FIAT microfilm reel contains 129 reports on research chiefly in the field of pharmaceuticals, including syntheses of intermediates for pharmaceuticals, insecticides, etc. Individual items will be available as enlargement prints. Please give PB and frame numbers when ordering individual items. These reports are all in German. They are listed as follows:

Frames	Title	Price
4695-4702 PB L 74799	Yearly report, 1939. By Lorenz. 1940. In German. On 2-alkyl imidazolines, benzylamines, d-galactose, p-hydroxyphenyl acetic acid, 2-amino-pyridine, "Diseptal B," "Mesudin," 4-amino-pyridine.	$1.50
4703-4704 PB L 74799	Objection to application H 144000 IVa/12n. By Medick. In German.	1.50
4705-4707 PB L 74799	Soporifica. By Meiser. 1941. In German.	1.50
4708-4711 PB L 74799	Report. By Schütz. 1941. In German. 2-Methyl-5-aminomethyl-6-aminopyridine; hexahydroresorcinol; phenol derivatives.	1.50
4712-4716 PB L 74799	"Markogen." By Wase. 1938. In German.	1.50
4717-4720 PB L 74799	Barbituric acids. By Wiegand. 1939. In German.	1.50
4721-4728 PB L 74799	The effect of "Marfanil" and other sulfonamides. By Anhagen. 1944. In German.	1.50
4729-4763 PB L 74799	Progress reports 1938. By Bauer. In German. Amino-pyridines; benzene sulfonamido-thiazoles; thiazole-benzene sulfonamides; antipyrine sulfonamides.	3.50
4764-4770 PB L 74799	"Astrosol." By Bauer. 1940. In German.	1.50
4771-4772 PB L 74799	2-Aminopyridine. By Bauer. 1941. In German.	1.50
4773-4777 PB L 74799	Yearly report, 1940. By Bauer. In German. "Astrosol," sulfapyridine, aminopyridine, "Mesudin," "Diseptal," "Solustiboson," "Antimosan," "Bichin."	1.50
4778-4780 PB L 74799	Sulfathiazole. By Bauer. 1941. In German.	1.50
4781-4787 PB L 74799	Yearly report, 1941. By Bauer. In German.	1.50
4788-4799 PB L 74799	Sulfapyridine. By Bauer. 1941. In German.	1.50
4800-4808 PB L 74799	Elendron. By Bauer. 1941. In German.	1.50
4809-4818 PB L 74799	4,4'-Diamino-diphenylsulfone in commercial sulfanilamide. By Bohnisch. 1938. In German.	1.50
4819-4821 PB L 74799	"Disicil." By Bohnisch. 1938. In German.	1.50
4822-4825 PB L 74799	"Albucid." By Bohnisch. 1938. In German. ="Diseptal D," 4-amino-benzene sulfonic acid acetamide.	1.50
4826-4828 PB L 74799	4-Butylamino acetamido benzene-sulfonic acid. By Bohnisch. 1940. In German.	1.50
4829-4832 PB L 74799	Research in the field of sulfamides. By Bohnisch. 1940. In German.	1.50
4833-4837 PB L 74799	"Bupatin." By Bohnisch. 1940. In German.	1.50
4838-4848 PB L 74799	Research in the field of sulfonamides By Bohnisch. 1940. In German.	1.50
4849-4855 PB L 74799	"Disentals" (criticism of Japanese patent application). By Bohnisch. 1941. In German.	1.50
4856-4858 PB L 74799	Analyses of the sulfapyridine and sulfathiazole series. By Bohnisch. 1941. In German.	1.50
4859-4869 PB L 74799	Progress reports. By Bohnisch. 1941. In German. "B 1034," "B 1099," sulfapyridine, reactions of prontylchloride, glycosides of sulfapyridines and of sulfathiazoles.	1.50
4870-4884 PB L 74799	Report on chemotherapeutic research (effect of sulfonamides and sulfones). By Bock. 1944. In German.	1.50
4885-4892 PB L 74799	Progress reports. By Deichsel. 1941. In German. "Bupatin," galactose, "L-sulfon," "Tibatin."	1.50
4893-4895 PB L 74799	Progress reports. By Deichsel. 1944. In German. Aminopyridine, propionaldehyde, aminomethyl-pyrimidine.	1.50
4896-4898 PB L 74799	Experiments on foot-and-mouth disease. 1938. In German.	1.50
4899-4903 PB L 74799	Progress reports. By Deichsel. 1940. In German. Galactose; "Bupatin."	1.50
4904-4908 PB L 74799	Yearly report, 1940. By Dörr. In German. "Uliron," "Mesudin," "Astrosol," sulfapyridine, sulfathiazole, "Prontalbin," prontylchloride, piperazine, "Presinol."	1.50
4909-4917 PB L 74799	Yearly report, 1944. By Dörr. In German. "Debenal," niacine, galactose, sulfaguanidine, vitamin B_1, "Sostol," "Pardinon," "Adalin," "Bedional," Prontosil, etc.	1.50
4918-4931 PB L 74799	Progress report. By Hecht. 1938. In German.	1.50

Pharmacological tests; excretion of porphyrine by rats after feeding prontosil derivatives.

4931A-4948 PB L 74799 — Chemotherapy of pneumonia. n. d. In German. 2.00

4949-4951 PB L 74799 — Gonococcus cultures. n. d. In German. 1.50
Incomplete item.

4952-4966 PB L 74799 — Results of tests on pneumococci, streptococci, and tubercle bacilli. 1936. In German. 1.50

4967-4970 PB L 74799 — Prontosil fever. By Gottsacker. 1944. In German. 1.50

4971-4973 PB L 74799 — Intermediates for "Eunatin." By Haensel. 1939. In German. 1.50

4974-4979A PB L 74799 — Prontosil rubrum. By Haensel. In German. 1.50

4980-4984 PB L 74799 — Mercury compounds. By Heinhold. 1940. In German. 1.50

4985-4990 PB L 74799 — Progress reports. By Hiltmann. 1939. In German. 1.50
Mercury-sulfamide derivatives and alkyl-mercury-nitrogen compounds.

4991-4995 PB L 74799 — Report of the Bacteriological Laboratory (results of tests). By Gottsacker. 1938. In German. 1.50

4996-5031 PB L 74799 — Progress reports. By Klarer. 1938-1944. In German. 4.00
Sulfone and sulfonamide research.

5032-5037 PB L 74799 — Preparation of 4,4'-diphenylsulfone. By Lautenschlager. 1941. In German. 1.50

5038-5044 PB L 74799 — Recovery of aminopyridine from the acetyl-sulfapyridine process. By Lautenschlager. 1944. In German. 1.50

5045-5050 PB L 74799 — "Disental B." By Lorenz. 1939. In German. 1.50

5051-5059 PB L 74799 — Progress report. By Lorenz. 1939. In German. 1.50
4-Pyridylpyridinium dichloride; 4-aminopyridine; sulfapyridine.

5060-5066 PB L 74799 — 2-Aminopyridine. By Medick. 1940-1941. In German. 1.50

5067-5074 PB L 74799 — Progress report. By Medick. 1944. In German. 1.50
Sulfaguanidine, "Sostol," o-formic acid esters, urea-formaldehyde condensation, "Debenal," vitamin B_1, pyridone nitrate.

5075-5099 6100-6111 PB L 74799 — Progress reports. By Mietsch. 1938-1940. In German. 4.00
Sulfonamide and sulfone compounds, sulfonyl compounds of phenylene diamines.

5100-6099 PB L 74799 — These frames are missing, due to faulty numbering.

6112-6191 PB L 74799 — Progress reports. By Pöhls. 1938-1939. In German. 8.00
Aromatic sulfones, sulfarylide-sulfinic acids, carbondiethyl-amides, urea compounds of 3,5-diiodoaniline.

6192-6197 PB L 74799 — Ethylmaleic acid anhydride. By Pöhls. 1940. In German. 1.50

6198-6202 PB L 74799 — Preparation of sulfones. By Pöhls. 1940. In German. 1.50

6203-6207 PB L 74799 — Ureas of the diphenylsulfone series. By Pöhls. 1940. In German. 1.50

6208-6222 PB L 74799 — Progress reports. By Pöhls. 1940. In German. 1.50
Diphenylsulfone derivatives, quinoline sulfonamides, diazo-amino compounds of sulfonamides and sulfones.

6223-6226 PB L 74799 — Asymmetrically substituted diphenylsulfones. II. By Pöhls. 1941. In German. 1.50
See Frames 6237-6239, below.

6227-6229 PB L 74799 — Ethers of the diphenylsulfone series. By Pöhls. 1941. In German. 1.50

6230-6232 PB L 74799 — 4,4'-Diaminodiphenylsulfide. By Pöhls. 1941. In German. 1.50

6233-6236 PB L 74799 — 4-Isovaleroylamino-4'-amino-diphenylsulfone and its water-soluble derivatives. By Pöhls. 1941. In German. 1.50

6237-6239 PB L 74799 — Asymmetrically substituted diphenyl-sulfones. I. By Pöhls. 1941. In German. 1.50
See Frames 6223-6226, above.

6240-6243 PB L 74799 — Anthraquinone sulfonamides. By Pöhls. 1941. In German. 1.50

6244-6253 PB L 74799 — Progress reports. By Pöhls. 1941. In German. 1.50
Aminotriazines, anthraquinone sulfinic acids, isothioureas, sulfimides, etc.

6254-6258 PB L 74799 — Asymmetrically substituted diphenyl-sulfones. By Pöhls. 1942. In German. 1.50

6259-6261 PB L 74799 — Diamines of the diphenylsulfone series. By Pöhls. 1944. In German. 1.50

6262-6269 PB L 74799 — Sulfur compounds. By Pöhls. 1944. In German. 1.50

6270-6275 PB L 74799 — Use of sodium hydroxide - instead of soda - in coupling 2-amino-thiazole with prontylchloride. By Wiegand. 1941. In German. 1.50

6276-6279 PB L 74799 — Progress report. By Andersag. 1940. In German. 1.50
Thiazole compounds; echinochrome.

6280-6281 PB L 74799 — Preparation of hydroxy pyridines. By Bauer. 1938. In German. 1.50

6282-6284 PB L 74799 — Progress report. By Bauer. 1938. In German. 1.50
Luminescent compounds; sulfonamide research.

6285-6286 PB L 74799 — Thiocresol benzyl ether. By Bauer. 1940. In German. 1.50

6287 PB L 74799 — "Antimosan." By Bauer. 1941. In German. 1.50

6288-6290 PB L 74799 — Desarsenication of "Bichin" waste liquors. By Bauer. 1941. In German. 1.50

6291-6292 PB L 74799 — "Bichin" and "Oxychin." By Bauer. 1942. In German. 1.50

6293-6294 PB L 74799 — Experiments for green fodder preservation. By Bohne. 1938. In German. 1.50

6295 PB L 74799 — Pectin films. By Bohne. 1938. In German. 1.50

6296-6298 PB L 74799 — Aspergillus oryzae for "Filtracol" production. By Bohne. 1940. In German. 1.50

6299-6302 PB L 74799 — Invertase preparations. By Bohne. 1940. In German. 1.50

6303-6308 PB L 74799 — Experiments for green fodder preservation. By Bohne. 1941. In German. 1.50

6309-6312 PB L 74799 — "Filtracol." By Bohne. 1942. In German. 1.50

6313-6323 PB L 74799 — Progress reports. By Breitner. 1938. In German. 1.50
Chiefly syntheses in the hydroaromatic series.

6324-6353 PB L 74799 — Progress reports. By Breitner. 1940. In German. 3.50
Same fields of research.

6354-6368 PB L 74799 — Progress reports. By Breitner. 1941. In German. 1.50
Continuation.

6369-6375 PB L 74799 — Research reports. By Breitner. 1944. In German. 1.50
Further syntheses.

6376-6377 PB L 74799 — Production of 1-dimethylamino-3-bromo butane. By Deichsel. 1938. In German. 1.50

6378-6380 PB L 74799 — Isobutylbromide. By Deichsel. 1938. In German. 1.50

6381-6382 PB L 74799 — Phenylmalonic acid dimethyl ester. By Deichsel. 1940. In German. 1.50

6383-6385 PB L 74799 — Substitutes for soap and tooth paste. By Deichsel. 1940. In German. 1.50

6386-6392 PB L 74799 — Electrolytic reduction of homopiperonalorime to homopiperonylamine. By Dörr. 1938. In German. 1.50

6393-6394 PB L 74799 — "Lunchlorid." By Gänsler. 1938. In German. 1.50

6395-6403 PB L 74799 — 2-Chloro-4-dimethylamino-6-methylpyrimidine (rat poison). By Gänsler. 1938. In German. 1.50

6404-6406 PB L 74799 — Malonic ester. By Gänsler. 1938. In German. 1.50

6407-6410 PB L 74799 — "Vitanesin." By Gänsler. 1938. In German. 1.50

6411-6413 PB L 74799 — "Cinnolin." By Gänsler. 1939. In German. 1.50

6414-6421 PB L 74799 — "C-ester M." By Gänsler. 1941. In German. 1.50

6422-6426 PB L 74799 — Purification of crude "Oxychin." By Gundlach. 1944. In German. 1.50

6427-6430 PB L 74799 — Monthly reports, January-February, 1938. By Heimhold. In German. 1.50
Various experiments.

6431-6433 PB L 74799 — Methyl mercury chloride. By Heimhold. 1938. In German. 1.50

6434-6437 PB L 74799 — Yearly report, 1939. By Heimhold. In German. 1.50
Mercury compounds for fungicides, vitamins B_1 and D_3, etc.

6438-6441 PB L 74799 — Tetramethylthiurammonosulfide. By Heimhold. 1940. In German. 1.50

6442-6445 PB L 74799 — "Äthylomester M." By Heimhold. 1940. In German. 1.50
Äthylphenylmalonic acid dimethylester.

6446-6448 PB L 74799 — Purification of "Asichin." By Heimhold. 1941. In German. 1.50

6449-6460 PB L 74799 — Monthly reports November 1938-April 1939. By Hiltmann. In German. 1.50
Short statements on syntheses carried out or attempted.

6461-6462 PB L 74799 — Accelerator competing with "Du Pont 833." By Hoffmann. 1939. In German. 1.50

6463-6464 PB L 74799 — Condensation products. By Hoffmann. 1938. In German. 1.50

6465-6469 PB L 74799 — "Lunchlorid." By Gänsler. 1938. In German. 1.50

6470-6480 PB L 74799 — "Solidan." By Kaltschmitt. 1942. In German. 1.50

6481-6483 PB L 74799 — "4-Ribamin." By Kaltschmitt. 1942. In German. 1.50

6484-6485 PB L 74799 — Methyl-mercury compounds from methane-sulfinic acid. By Klös. 1937. In German. 1.50

6486-6492 PB L 74799 — Progress report. By Klös. 1938. In German. 1.50
Short reports on syntheses of various compounds.

6493-6509 PB L 74799 — Bakrane hydrocarbons. By Klös. 1938. In German. 2.00

6510-6545 PB L 74799 — Progress reports. By Klös. 1939-1940. In German. 4.00
Asymmetric diphenylethylenes and other syntheses in search of laxatives and of anti-virus agents.

6546-6555 PB L 74799 — "Dikarbon." By Lautenschlager. 1938. In German. 1.50

6556-6560 PB L 74799 — Production of "Gentia 1" (intermediate for "Solarson"). By Lautenschlager. 1942. In German. 1.50

6561-6562 PB L 74799 — Colchicine research. By Linsert. 1941. In German. 1.50

6563-6564 PB L 74799 — "5,5'-Dibromsalicil" from 5-bromsalicylaldehyde. By Linsert. 1944. In German. 1.50

6565-6568 PB L 74799 — 2,2,2-Trichloro-1,1-di-(p-nitrophenyl)ethane). By Lorenz. 1944. In German. 1.50

6569-6615 PB L 74799 — Monthly reports, Jan.-Dec. 1938. By Meiser. In German. 5.00
"Antikon" preparations; anti-leprosy agents; insecticides; agents against staphylococci, pneumococci, and streptococci; anti-malarials; narcotics.

6616-6618 PB L 74799 — New lamp for the "Pulfrich" photometer. By Merkel. 1939. In German. 1.50

6619-6622 PB L 74799 — Yearly report, 1944. By Merkel. In German. 1.50
Measurement of the temperature of the phosphorus flame; spectroscopic research.

6623-6627 PB L 74799 — Acetothine compounds of 4,4'-diaminodiphenylsulfone. By Föhls. 1938. In German. 1.50

6628-6633 PB L 74799 — Progress report. By Föhls. 1940. In German. 1.50
Diacetamino compounds; ureas.

6634-6636 PB L 74799 — A progress report beginning and end of which are missing. Tachysterol ester: "Mitigal." n. d. In German. 1.50

Drugs and Pharmaceuticals (contd)

6637-6644 PB L 74799 — Yearly report, 1939. By Mietzsch. In German. A listing of new products and research. 1.50

6645-6653 PB L 74799 — Theory of regulation. By Lode. 1938. In German. 1.50

6654-6663 PB L 74799 — Progress reports. By Klös. 1940-1941. In German. Methyl- and ethyl-mercury nitrate, etc. 1.50

6664-6665 PB L 74799 — Synthesis of xanthopterine. By Koschara. 1940. In German. 1.50

6666-6686 PB L 74799 — "Urothion." By Koschara. 1941. In German. 2.50

6687-6692 PB L 74799 — Progress report. By Salzer. 1938. In German. 3,4-Dihydro-2(1)-naphthalenone and derivatives; cyclopentenylethyl alcohol. 1.50

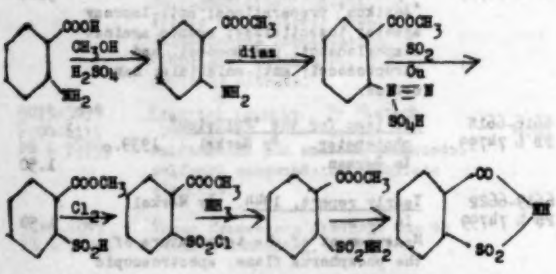
6693-6707 PB L 74799 — Yearly report, 1938. By Schmidt. In German. "Neostibosan," "Solustiburan," etc. Only part of the report is on this reel. 1.50

PB L 87796. SOBOTKA, HARRY. Vitamin A. Final report. Contract OEMcmr 110. Jul 1944. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

This report summarizes the results of the work carried out under OSRD CMR Contract No. OEMcmr 110, covering work on β- and α-ionone, methods for preparation of γ-halo-crotonic esters and pentane-2-one-4, and intermediates in the synthesis of the sidechain, geranic acid derivatives, o-cresol and cyclohexanone and their conversion into 2,2',6-trimethylcyclohexanone and derivatives, and butanolone and its derivatives. The investigation resulted in the publication and preparation respectively of the attached list of articles (7 published, 6 in preparation).

PB L 86955. U. S. TECHNICAL INDUSTRIAL INTELLIGENCE COMMITTEE. CHEMICALS SUBCOMMITTEE. Various investigations on synthesis of saccharine without using toluene or potassium permanganate. Translation report. (Chemicals Rept 1) Oct 1945. 30 p. Price: Microfilm-$1.25 - Photostat-$2.00

A range of experiments was made in the endeavor to find a synthesis for the production of saccharine, which was technically easily workable, and did not use toluene or $KMnO_4$. The starting material was to be anthranilic acid. The principal course of the synthesis is:



Part I - Investigations for the production of saccharine without using toluene or potassium permanganate - Leverkusen; and Part II - Experiments on the synthesis of saccharine without potassium permanganate - I. G. Alizarine Dept., Leverkusen.

Agricultural Chemicals

PB L 81997. GOLDENSON, JEROME and SASS, SAMUEL. Estimation of diphenyl carbonate and dimalone in impregnated clothing. (CWS Tech Div Memo Rept 1313). May 1947. 37 p. Price: Microfilm-$1.75 - Photostat-$4.00

A variety of methods are discussed for the estimation of insecticides. Diphenyl carbonate has been found to be a good miticide and dimalone a good insect repellent.

PB L 86049. MACY, P. F. and others. Investigation of sensitivity of fertilizer grade ammonium nitrate to explosion. (Picatinny Arsenal Tech Rept 1658) Jul 1947. 46 p. Price: Microfilm-$2.00 - Photostat-$5.00.

In order to determine the probable cause and mechanism of the explosion of cargoes of fertilizer grade ammonium nitrate on shipboard at Texas City, Texas, on 16 and 17 April 1947, an investigation has been made of the materials involved, possible contaminants, and the possibility of converting combustion of the bagged nitrate into a detonation. It is indicated that both the nitrate and bags were of satisfactory quality and no deficiency in this respect was responsible for the fire which preceded the explosion. The temperature required to cause the spontaneous ignition of bagged nitrate fertilizer has been found to be so high (150°C.) as to indicate the improbability of this being the origin of the fire on board the "Grand camp". It has been found that the combustion of nitrate and paper or wood can produce gaseous products which can undergo explosion and in turn initiate the explosion of unconsumed nitrate fertilizer. A hypothesis of the mechanism of th Texas City disaster has been established on this basis.

PB L 86929-PB L 86932. NIPPON NŌGEI KAGAKKAI (AGRICULTURAL CHEMICAL SOCIETY OF JAPAN), TOKYO. Journal. v. 17, Nos. 1-12; v. 18, Nos. 1-12; v. 19, Nos. 1,2,5,6,8-12; and v. 20, Nos. 7-12. 1941-1944. Paging and prices as follows:

PB	Volume	Nos.	Date	Pages	Price Micro.	Price Photo.
L 86929	17	1-12	1941	1511	$7.00	$152.00
L 86930	18	1-12	1942	1648	7.00	167.00
L 86931	19*	1,2,5, 6,8-12	1943	963	7.00	97.00
L 86932	20**	7-12	1944	317	7.00	32.00

* For v. 19, No. 7, see PB L 59871.
** For v. 20, Nos. 1-6, see PB L 59872-PB L 59877.

These documents are bound and partial volumes of a Japanese technical journal on current chemical research as applied to agriculture. The Nippon Nōgei Kagakkai-shi is printed in Japanese and published by Agricultural Chemical Society of Japan, Faculty of Agriculture, Tokyo Imperial University. This society also publishes the Bulletin of the Agricultural Chemical Society of Japan which contains abstracts from the Journal in English and/or German.

PB L 7736-S6. REINHOLD, J. Report on the continuation of tests for utilization of lignin (wood freed from alkali solution). (Supplement to PB 7736) (FIAT Final Rept 499, Supp.) 1942. 50 p. Price: Microfilm-$1.00 - Photostat-$4.00

This document is a supplement to the report "Production of wood sugar in Germany and its conversion to yeast and alcohol," see Bibliography, vol. 1, p. 492. Late effects of a previous fertilization with lignin on lettuce and leek are described, physical investigations of the soil on the test allotments, and new fertilization tests with stored, neutralized lignin (on spinach and kohlrabi). An English translation accompanies the German text.

PB L 81714. WEAVER, W. E. and WHALEY, W. M. Orgahic fungicides. I. The preparation of some bromoacetamides. Oct 1946. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00

Twenty-three α-bromoacetamides have been prepared preliminary to evaluation of their fungicidal activity. Twenty of these

are new compounds. A general method for preparing amides from acid halides in ethylene dichloride is given. Analytical results and physical properties of all the compounds prepared are given in Table I. Naval Research Laboratory. Reprint from J. Am. Chem. Soc., *69*, 515, (1947).

PB L 81709. WELKER, PAUL L. and ABERCROMBIE, WARREN F. Insect and rodent control. Part I - Technical aspects, Part II - Medical aspects. CML C Quarterly progress report, no. 11, Apr 1 - Jun 30 1947. Jul 1947. 38 p. Price: Microfilm-$1.75 - Photostat-$4.00

Part I contains information on the following data: (a) synthesis of 2 arsenicals for testing as insecticides, 6 organic compound as mosquito repellents, and 3 as repellents against the spotted fever tick, (b) means for dispersal of insecticides and rodenticides, (c) physical and chemical methods for evaluation of dispersal devices, and (d) impregnation of clothing with insecticides, miticides, and repellents. Part II contains the pharmacological and toxicological data. Army Chemical Center, Maryland.

Inorganic Chemicals

*PB L 85156. FROMHOLZ, A. STANLEY. Experimental study of a continuous Bucher process for the production of sodium cyanide. (FIAT Final Rept 1310). n. d. 7 p. Price: Mimeo-$0.25

The Degussa investigators were able to determine conditions under which the process could be conducted continuously at such low temperatures as to permit the use of plain steel for the reactor. However, their work was interrupted before they were able to study the process extensively on a continuous basis on a pilot plant scale or demonstrate its feasibility on a sufficiently large scale to indicate practicality on a commercial scale.

PB L 82159. GEBRUEDER SIEMENS GLASHUETTENWERKE A. G., BITTERFELD, GER. GERMANY. Fibers of sodium silicate by the "Lentz Process." (FIAT Microfilm Reel A 78, Frames 1-54) 1939-1947. 54 f. Price: Microfilm-$2.25 - Enlargement print-$7.00

This FIAT microfilm contains the patent application Lentz of 1942, and correspondence in connection with it. The patent application describes a process for making quartz fibers from water glass by means of an electric field of high voltage (300,000 volts). The correspondence discusses this process, describes tests, etc. The patent situation is discussed. Part of this reel is almost illegible. In German.

PB L 74896. I. G. FARBENINDUSTRIE A. G., LEVERKUSEN, GERMANY. Reports on titanium paints. (FIAT Microfilm Reel T-46, Frames 1-38). 1933. 38 f. Price: Microfilm-$1.25 - Enlargement Print-$4.00

This FIAT microfilm reel describes the production of titanium paints and methods for testing them. The production of titanium dioxide from ilmenite is described in detail. The processes for "Standard T" (titanium and barium pigment) and for blanc fixe are briefly described. Directions are given for the analysis of titanium ore and pigment, and for the determination of the coloring power. Part of the reel is not very legible. In German.

*PB L 85390. PFUND, A. H. Protective coatings for plates of rock salt and silver chloride. Final report. (OSRD Rept 3552; NDRC 16.4 Rept 31). Apr 1944. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

The purpose of this report is to present information which will: (a) protect rock-salt from saturated water-vapor for 24 hours and from water drops for 2 hours, and (2) protect AgCl from darkening without impairing infrared transmission. Johns Hopkins University.

Miscellaneous Chemicals

PB L 70346. ANORGANA G. M. B. H., GENDORF, GERMANY. Laboratory reports on textile aids. (FIAT Microfilm Reel C-17, Frames 18961-19761) (See also FIAT Microfilm Reel C-18, PB 70347). 1933-1944. 800 f. Price: Microfilm-$6.00 - Enlargement print-$80.00.

This reel was prepared by FIAT investigators in Germany. 102 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
18961-19000 PB L 70346	Examination of soap fatty acids from synthetic paraffin. By Weiss and others. Aug 6, 1940. In German. Incomplete. First 10 frames on Reel C 16, PB L 70345.	$4.00
19001-19012 PB L 70346	Testing the qualities of soaps from fatty acids of the chain length C_{10}-C_{20} and from fractions of soap fatty acids of the paraffin oxidation. By Kölbl. Aug 29, 1940. In German.	1.50
19012a-19033 PB L 70346	Odor tests of soaps of the paraffin oxidation. By Leithe. Jan 30, 1939. In German.	2.50
19034-19044 PB L 70346	Determination of the contents of regular paraffins in benzines, middle oils and paraffins. By Leithe. Aug 2, 1940. In German.	1.50
19045-19052 PB L 70346	Separation of unsulfonated substances from sulfonation products by means of tertiary amines. By Nebe. Feb 3, 1943. In German.	1.50
19053-19059 PB L 70346	A new mild washing process for white laundry goods. By Amende. Feb 12, 1943. In German.	1.50
19060-19074 PB L 70346	Using diethylene imides for textiles processing. By Armbruster. Dec 28, 1942. In German.	1.50
19075-19084 PB L 70346	A new process of hydrophobing. Feb 12, 1943. In German.	1.50
19085-19089 PB L 70346	Quantitative examination of the esterification of triethanolamine with fatty acids. Jan 22, 1943. In German.	1.50
19090-19091 PB L 70346	Technical production of gamma-chlorobutyric acid. Apr 24, 1944. In German.	1.50
19092-19093 PB L 70346	Further studies of ethylenimine derivatives. Apr 22, 1944. In German.	1.50
19094-19095 PB L 70346	Washing and textile auxiliary agents from sulfonated fatty acid alkanol	

amides. By Ploetz and Roessler. Apr 21, 1944. In German. 1.50

19096-19097 PB L 70346 — Studies on the sulfonation of olein. By Zohner. Apr 22, 1944. In German. 1.50

19098-19100 PB L 70346 — Dimethylolcarboxylic amides for textile processing. By Krzihalda. Apr 20, 1944. In German. 1.50

19101-19106 PB L 70346 — Investigations on "acrisines" from Röhm & Haas. May 12, 1944. In German. 1.50

19107-19122 PB L 70346 — "Ridelsanu extract" sulfonates and their chlorinated products. By Doerr. Jun 26, 1933. In German. 2.00

19123-19130 PB L 70346 — Sulfonation of partially hydrogenated fish oils. By Siefken. Jun 28, 1933. In German. 1.50

19131-19146 PB L 70346 — Testing false camphir. By Siefken. Jun 28, 1933. In German. 2.00

19147-19155 PB L 70346 — Starch hydrolizing agents. Jun 30, 1933. In German. 1.50

19156-19168 PB L 70346 — High molecular amines. Jun 30, 1933. In German. 1.50

19169-19179 PB L 70346 — Substitution products of urea and thiourea as mercerizing wetting agent on cresol-xylenol basis. By Siefken. In German. 1.50

19180-19194 PB L 70346 — Conversion products of ethylene oxide and glycide. Jul 6, 1933. In German. 1.50

19195-19223 PB L 70346 — Reaction products of ethylene oxide on amides, hydroxy alkyl amides, paraffin amines, glyceride mixtures and higher molecular carboxylic acids. By Keppler. Jul 6, 1933. In German. 3.00

19224-19234 PB L 70346 — Production of glycide from monochlorohydrin. Jul 6, 1933. In German. 1.50

19235-19251 PB L 70346 — Sulfonation of the reaction products of ethylene oxide on amides, hydroxyalkyl amides. By Siefken. Jul 7, 1933. In German. 2.00

19252-19274 PB L 70346 — Condensation of albumen composition products and of hydroxyethylated albumen decomposition products with fatty acid chlorides. By Meyer. Jul 6, 1935. In German. 2.50

19275-19281 PB L 70346 — Examination of the product "Lamepon A", produced by Chemische Fabrik Grünau. By Orthner. Mar 15, 1933. In German. 1.50

19282-19287 PB L 70346 — Petroleum sulfonates. Aug 4, 1932. In German. 1.50

19288-19291 PB L 70346 — Wetting agents on butyl taurine basis. By Orthner. Jul 4, 1933. In German. 1.50

19292-19299 PB L 70346 — Textile aids. Condensation products from highly molecular carboxylic acids with amino carboxylic acids or albumin decomposition products. By Keppler, and Meyer. Feb 24, 1933. In German. 1.50

19300-19305 PB L 70346 — Cholesterol./ Wool fat. By Keppler and Weigel. Nov 24, 1933. In German. 1.50

19306-19309 PB L 70346 — Albumin decomposition products. By Meyer. Nov 24, 1933. In German. 1.50

19310-19321 PB L 70346 — Derivatives of phenol resins. By Doerr. Apr 17, 1934. In German. 1.50

19322-19327 PB L 70346 — Amides of higher fatty acids with carboxyl groups in the amide radical. By Keppler. Apr 19, 1934. In German. 1.50

19328-19339 PB L 70346 — Modern textile aids. Jun 29, 1934. In German. 1.50

19340-19342 PB L 70346 — Textile aids on a urea and thiourea basis. By Doerr, and Siefken. Nov 8, 1934. In German. 1.50

19343-19349 PB L 70346 — Synthetic textile aids containing carboxyl groups. By Doerr and others. Nov 8, 1934. In German. 1.50

19350-19354 PB L 70346 — Reactions with ethylene imine. By Doerr and Bloemer. Feb 11, 1935. In German. 1.50

19355-19359 PB L 70346 — "Igepons." By Doerr. Feb 13, 1935. In German. 1.50

19360-19365 PB L 70346 — Substituted taurines and their use as textile aids. By Keppler. In German. 1.50

19366-19368 PB L 70346 — Production process for mustard oils and isocyanates corresponding to higher molecular fatty amines. By Siefken. Mar 25, 1935. In German. 1.50

19369-19389 PB L 70346 — Condensation of higher fatty acid chlorides with aromatic aminosulfonic acids. By Keppler. Apr 30, 1935 . In German. 2.50

19390-19395 PB L 70346 — New Igepon T-like substances and their intermediate products. By Doser and Schroster. Oct 10, 1935. In German. 1.50

19396-19398 PB L 70346 — Phosphoric acid esters of middle and higher alcohols. By Schneider. Oct 3, 1935. In German. 1.50

19399-19403 PB L 70346 — Tests for producing waterproof finishes. By Havekoss. Oct 1, 1935. In German. 1.50

19404-19412 PB L 70346 — Condensation products of halogenated highly molecular carboxylic acids with aminocarboxylic acids. By Keppler and Schneider. Oct 3, 1935. In German. 1.50

19413-19418 PB L 70346 — Taurides or sarcosides of middle fatty acids as hydrotropically or surface active substances. By Keppler and Havekoss. Oct 10, 1935. In German. 1.50

19419-19423 PB L 70346 — Hydroxyethylating products of fatty amines as even dyeing agents. By Keppler. Oct 10, 1935. In German. 1.50

19424-19428 PB L 70346 — "Igepons" and medialans" on the basis of paraffin carboxylic acids. By Keppler. Jan 30, 1936. In German. 1.50

19429-19435 PB L 70346 — "Igepons" and "Medialans" on the basis of talloil fatty acid or talloil. By Keppler. Jan 30, 1936. In German. 1.50

19436-19438 PB L 70346 — "Dielsanu" extract sulfonates 2nd report. By Doser. Jan 30, 1936. In German. 1.50

19439-19450 PB L 70346 — The technical production of product Le 230, (condensation product from oleic acid chloride + 2- amino propane - 1 - sulfonic acid). By Doser. Oct 15, 1936. In German. 1.50

19451-19458 PB L 70346 — Animalizing of copper rayon and viscose by spinning polyamides containing a higher aliphatic radical. By Keppler. Oct 15, 1936. In German. 1.50

19459-19466 PB L 70346 — Production of higher aliphatic isocyanates and their condensation products with methyltaurine. By Dröser and Siefken. Oct 15, 1936. In German. 1.50

19467-19480 PB L 70346 — Sulfonate of secondary fatty alcohols. Sulfonate of the alcohol from distilled undecyl methylketone and furthermore from distilled methyloctodecyl ketone. By Ballauf. Oct 27, 1936. In German. 1.50

19481-19495 PB L 70346 — Hydrophobation process. By Doser. May 7, 1937. In German. 1.50

19496-19497 PB L 70346 — Tests for utilizing the anthracene residue as starting material for white laundry agents. By Ballauf. Jun 11, 1937. In German. 1.50

19498-19500 PB L 70346 — Condensation products from phenols, formaldehyde and amino sulfonic acids or carboxylic acids. By Doser. Jun 11, 1937. In German. 1.50

19501-19502 PB L 70346 — High molecular taurines as textile aids. By Doser. Jun 11, 1937. In German. 1.50

19503-19507 PB L 70346 — Watersoluble compounds with several surface active hydrocarbon radicals in the molecule. By Nelles and Ballorof. Jun 14, 1937. In German. 1.50

19508-19515 PB L 70346 — "Solidogens". Jun 5, 1937. In German. 1.50

19516-19529 PB L 70346 — Animalization of rayon staple. (Pg. 19517 with last pg. of report missing). By Nelle and Fischbein. Jun 25, 1937. In German. 1.50

19530-19539 PB L 70346 — Effect of alkali on chlorinated paraffins according to U. S. patent 2046 090. By Keppler. Feb 20, 1937. In German. 1.50

19540-19545 PB L 70346 — Chlorination of paraffins in the presence of sulfur dioxide. By Keppler. Mar 4, 1938. In German. 1.50

19546-19547 PB L 70346 — Animalization of rayon staple (see f. 19516). By Nelles. Feb 22, 1938. In German. 1.50

19548-19566 PB L 70346 — Manufacture of condensation products of the "Lamepon" type. By Keppler. Feb 24, 1938. In German. 2.00

19567-19575 PB L 70346 — Textile aids based on "Le 230" and "Igelevar 203". By Ballauf. Feb 22, 1938. In German. 1.50

19576-19581 PB L 70346 — New "Solidogens." By Petersen. Feb 17, 1938. In German. 1.50

19582-19586 PB L 70346 — Utilization of zirconium salts for fixing textile finishes. By Dosen. Feb 23, 1938. In German. 1.50

19587-19592 PB L 70346 — Manufacture of stiffened linen goods with the aid of plastics. (Trubenising-process). By Hintzmann. Feb 21, 1938. In German. 1.50

19593-19598 PB L 70346 — Laboratory washing machine for experiments with small quantities of substances. By Keppler. Feb 18, 1938. In German. 1.50

19599-19600 PB L 70346 — Hydrophobation with the aid of zirconium. By Doser. Feb 15, 1940. In German. 1.50

19601-19604 PB L 70346 — New preparing and softening agents. By Nelles. Feb 16, 1940. In German. 1.50

19605-19609 PB L 70346 — Animalization of rayon staple (see page 19516 + 19546). By Nelles. Feb 15, 1940. In German. 1.50

19610-19616 PB L 70346 — Textile aids free from fat based on polyesters. By Nelles and Fischbein. Mar 14, 1941. In German. 1.50
See also sheet 19601.

19617-19620 PB L 70346 — Unsaturated polyesters as sizing agents. By Nelles and Müller. Mar 14, 1941. In German. 1.50

19621-19625 PB L 70346 — Sodium salt of di-trichlorobenzyl-taurin as washing agent. By Doser. Mar 18, 1931. In German. 1.50

19626-19629 PB L 70346 — Textile processing with "Kauri" and metal salts. By Doser. Mar 18, 1941. In German. 1.50

19630-19634 PB L 70346 — Disinfecting agent based on "Mersol." By Wegler. Mar 19, 1941. In German. 1.50

19635-19636 PB L 70346 — Sizing agent on acrylamide basis. By Nelles and Geusel. Mar 17, 1941. In German. 1.50

19637-19646 PB L 70346 — Splicing of fiber and its prevention. By Schürmann and Dormagen. Mar 20, 1941. In German. 1.50

19647-19650 PB L 70346 — Water soluble polyester as sizing agents. By Müller. Nov 26, 1941. In German. 1.50

19651-19655 PB L 70346 — New research on optical bleaching agents. By Petersen. Nov 25, 1941. In German. 1.50

19656-19662 PB L 70346 — Improvements of "Persistol" impregnation and salt. By Doser. Nov 27, 1941. In German. 1.50

751194 O—48—2—36

Miscellaneous Chemicals (contd)

19663-19667 PB L 70346	Rayon staple processing by metal salts and melamine-formaldehyde. By Doser. Nov 11,1941. In German. See Frame 19626 and following.	1.50
19668-19671 PB L 70346	New brightening agents. By Zerves. Nov 20, 1941. In German.	1.50
19672-19679 PB L 70346	New methods of sulfonation. By Brodersen. Jul 5, 1933. In German.	1.50
19680-19682 PB L 70346	Agent for even and penetrating dyeing. By Brodersen. Jul 5, 1933. In German.	1.50
19683-19687 PB L 70346	Sulfonation of fatty acid hydroxyalkyl esters and their condensation with aromatic hydrocarbons. By Brodersen. Jul 5, 1933. In German.	1.50
19688-19692 PB L 70346	Unsulfonated products. By Brodersen. Jul 5, 1933. In German.	1.50
19693-19700 PB L 70346	Mercerizing agents. By Brodersen. Jul 5, 1933. In German.	1.50
19701-19709 PB L 70346	Mercerizing wetting agents. By Brodersen. Nov 24, 1933. In German.	1.50
19710-19715 PB L 70346	Wool printing with vat dyes by using aminoacetic acid as fiber protective agent. By Brodersen. Nov 24, 1933. In German.	1.50
19716-19719 PB L 70346	Novel experiment for waterproofing. By Bordersen. Apr 3, 1934. In German.	1.50
19720-19723 PB L 70346	Grease-proof finishing. By Brodersen. Mar 30, 1934. In German.	1.50
19724-19727 PB L 70346	Mercerizing wetting agents. By Brodersen. Mar 30, 1934. In German.	1.50
19728-19731 PB L 70346	Special questions concerning preparation of viscose and acetate rayon. Jun 23, 1934. In German.	1.50
19732-19734 PB L 70346	Animalising rayon and viscose fibre. By Mininger. Jun 27, 1934. In German.	1.50
19735-19740 PB L 70346	Measuring the gliding speed of rayon. By Heisenberg. Sep 5, 1934. In German.	1.50
19741-19744 PB L 70346	Correlation between preparation and stability to boiling of acetate-rayon. Sep 5, 1934. In German.	1.50
19745-19755 PB L 70346	Introduction of hydrophylic groups into the fatty radical of textile aids. By Brodersen. Nov 9, 1934. In German.	1.50
19756-19761 PB L 70346	Preparation of carboxylic acids with an odd number of carbon atoms. By Brodersen and Quaedvlieg. Nov 9, 1934. In German.	1.50

PB L 70346-S. ANORGANA G. M. B. H., GENDORF, GERMANY. Laboratory reports on textile aids. (FIAT Microfilm Reel C-17, Frames 18961-19761, abstract cards). 1933-1944. 126 p. Price: Microfilm-$3.00 - Photostat-$9.00.

Brief abstracts of the individual items on the above reel C-17, PB 70346, prepared by FIAT personnel in Germany.

PB L 74289. I. G. FARBENINDUSTRIE A. G. Chemical reports. (FIAT Microfilm Reel F 219, Frames 1079-1843) 1939-1943. 765 f. Price: Microfilm-$6.00 - Enlargement print-$76.50

This FIAT microfilm reel contains a total of 75 chemical reports. Most of these reports are shortened versions of papers read at meetings of the Scientific Commission on Azo Dyes and at meetings of the Inorganic-Scientific Commission. Some of the full-length reports are added, as described below. Individual reports will be available as enlargement prints; please include PB and frame numbers when ordering. These reports are in German.

Frames	Title	Price
1079-1122 PB L 74289	Development of a process of selective extraction. Modern purification with phenol. Results for the control of the chemical composition of the oils and for the development of new selective substances. By René Navarre. 1940. German translation from the French.	$4.50
1123-1167 PB L 74289	Experiments on the distribution of liquids in packing columns. 1939. In German.	4.50
1168-1190 PB L 74289	Relative volatility and equilibrium curve of mixtures of two substances. By Matz. 1941. In German.	2.50
1191-1216 PB L 74289	The similarity between the exchange of heat and the exchange of substances. By Matz. 1941. In German.	3.00
1217-1295 PB L 74289	The general principle of similarity in physics as the base for technical model experiments. By Matz. 1941. In German.	8.00
1296-1308 PB L 74289	Control of the purity of oxygen and nitrogen from liquid air. 1939. In German.	1.50
1309-1332 PB L 74289	Methods using rectangular coordinates. (German translation of report of Maloney and Schubert from Transactions of Am. Inst. of Chem. Engin., vol. 36, No. 5, p. 741-757, of October 25, 1940.)	2.00
1333-1364 PB L 74289	Further development of the azeotropic method using extraction liquids. By Matz. 1941. In German.	3.50
1365-1402 PB L 74289	Automatic indirect control of quantities in rectifying columns. By Matz. 1943. In German.	4.00
1403-1434 PB L 74289	Höchst reports at the meeting of the members of the Scientific Ako in Frankfort on Main on April 30, 1940. In German.	3.50
1435-1452 PB L 74289	Acid wool dyes. (Leverkusen report at Scientific Ako meeting, April 30, 1940.) By Klingestein. In German.	2.00
1453-1470 PB L 74289	Report of the Scientific Main Laboratory Leverkusen on research in the azo field, to the 15th Scientific Ako, 4/30,1940. In German.	2.00
1471-1475 PB L 74289	Ako-report by Ludwigshafen. 1940. In German.	1.50
1476-1488 PB L 74289	Research in the azo field. (Reports by plant Mainkur.) 1940. In German.	1.50

1489-1493 PB L 74289 — Research in the azo field. (Reports by plant Offenbach.) In German. 1.50

1494-1520 PB L 74289 — Scientific Azo Meeting, 4/30, 1940. Report on the Naphthol-AS field. By Zitscher. In German. 3.00

1521-1526 PB L 74289 — Meeting of Scient. Azo, 4/30, 1940. Summary report by Wolfen. In German. 1.50

1527-1539 PB L 74289 — Meeting of the members of the Scientific Azo, 5/5, 1939, in Offenbach. Summary report on laboratory research by Leverkusen. In German. 1.50

1540-1559 PB L 74289 — Research in the azo field, 1938-1939, by Ludwigshafen. In German. 2.00

1560-1572 PB L 74289 — Research in the azo field: Mainkur. 1939. In German. 1.50

1573-1576 PB L 74289 — Summary report Wolfen (to same meeting, 1939). In German. 1.50

The following reports, Frames 1577-1734, were made by Höchst to the same meeting of Azo, 5/5, 1939:

1577-1578 PB L 74289 — Index. In German. 1.50

1579-1581 PB L 74289 — Dyes with "Carbolan" properties. By Fischer and others. In German. 1.50
See Frames 1663-1669, below.

1582-1583 PB L 74289 — Pigments, convertible to lacquers, from aminoaryl-carboxylic acids. By Funke and Elbs. In German. 1.50

1584 PB L 74289 — Azo pigments from 3-chloro-p-toluidine. By Funke and Elbs. In German. 1.50

1585 PB L 74289 — The relation between particle size and covering power. By Funke and Schnieder. In German. 1.50

1586 PB L 74289 — The influence of the temperature in processes for pigments. By Funke. In German. 1.50

1587 PB L 74289 — "Litholechtscharlach RN." By Funke. In German. 1.50
See Frames 1675-1681, below.

1588 PB L 74289 — "p-Nitrophenylmethylpyrazolon" in azo pigments. By Funke and Elbs. In German. 1.50

1589 PB L 74289 — Research on diarylamines. By Beck. In German. 1.50

1590 PB L 74289 — Verification of (U. S.) patents. By Beck. In German. 1.50

1591-1592 PB L 74289 — Acetoacetyl compounds. By Reuter. In German. 1.50

1593-1594 PB L 74289 — Substantive dyes for chromofluoride treatment on the fiber. By Fischer and Siebert. In German. 1.50
See Frames 1687-1693, below, for more complete report.

1595-1596 PB L 74289 — Diazotization dyes to be treated with copper salts. By Fischer and Siebert. In German. 1.50
See Frames 1694-1698, below.

1597-1598 PB L 74289 — Dyes for mixed textiles. By Fischer and others. In German. 1.50

1599 PB L 74289 — Green dyes for wool and cotton. By Siebert. In German. 1.50

1600-1602 PB L 74289 — Dyes from bis-pyrazolones and "Dehydrothiotoluidin-pyrazolon-sulfosäure." By Fischer and Gmelin. In German. 1.50

1603-1605 PB L 74289 — Yellow Autazol and diazotization dyes. By Fischer and Gmelin. In German. 1.50
See Frames 1636-1646, below.

1606-1609 PB L 74289 — Substantive azo dyes with aliphatically bound sulfo groups. By Fischer. In German. 1.50
See Frames 1700-1731, below.

1610-1612 PB L 74289 — Azo dyes for mixed textiles from wool and cellulose wool. By Fischer and Huse. In German. 1.50
See Frames 1647-1662, below.

1613-1614 PB L 74289 — Index. In German. 1.50
Duplication of Frames 1577-1578, above.

1615-1628 PB L 74289 — Dyes from bis-pyrazolones, etc. By Gmelin. In German. 1.50
See Frames 1600-1602, above. This is the complete, but handwritten, report of which the above is an excerpt.

1629-1631 PB L 74289 — Duplication of report on Frames 1603-1605, above.

1632-1633 PB L 74289 — Duplication of Frames 1597-1598, above.

1634 PB L 74289 — Green wool and cotton dyes. By Siebert. In German. 1.50

1635-1637 PB L 74289 — Duplication of Frames 1600-1602, above.

1638-1646 PB L 74289 — Yellow Autazol and diazotization dyes. By Gmelin. In German. 1.50
Complete report, of which Frames 1603-1605, above, gives an excerpt.

1647-1662 PB L 74289 — Azo dyes for mixed textiles from wool and cellulose wool. In German. 2.00
This is the complete report, not very legible; an excerpt is above on Frames 1610-1612 (by Huse and Fischer).

1663-1669 PB L 74289 — Dyes with "Carbolan" properties. By Fischer and others. In German. 1.50
The first frames duplicate Frames 1579-1581, above, but are followed by a more complete report.

1670-1674 PB L 74289 — These frames duplicate Frames 1582-1586, above.

1675-1681 PB L 74289 — "Litholechtscharlach RN." By Funke. In German. 1.50
While Frame 1675 duplicates Frame 1587, above, a more complete description follows it.

1682-1686 PB L 74289 — These frames duplicate Frames 1588-1592, above.

1687-1693 PB L 74289 — Substantive dyes for chromofluoride treatment on the fiber. By Fischer and Siebert. In German. 1.50
Frames 1687 and 1688 are identical with Frames 1593-1594; Frames 1689-1693 contain the complete report in handwriting.

1694-1698 PB L 74289 — Diazotization dyes to be treated with copper salts. By Fischer and Siebert. In German. 1.50
Frames 1694-1695 are identical with Frames 1595-1596; Frames 1696-1698 contain the complete report, handwritten.

1699 PB L 74289 — Charge slip for a borrowed report, 1940. In German. 1.50

1700-1731 PB L 74289 — Substantive azo dyes with aliphatically bound sulfo groups. By Fischer. In German. 3.50
Frames 1700-1703 are identical with Frames 1606-1609, above; Frames 1704-1731 give the complete report, typed but not very legible.

1732-1734 PB L 74289 — This is a duplication of the short report on Frames 1610-1612; the full-length report is on Frames 1647-1662.

The following reports, Frames 1735-1761, were given at a meeting of the Inorganic-Scientific Commission in Duisburg on March 8, 1940.

1735-1738 PB L 74289 — Cobalt precipitation. By Braun and Emert. In German. 1.50

1739-1748 PB L 74289 — Analcrams. By Hohn. In German. 1.50

1749-1755 PB L 74289 — Roasting pyrites with addition of chlorine. By Mettenkloott. In German. 1.50

1756-1757 PB L 74289 — Iron-sulfur alloys. By Brandl. In German. 1.50

1758-1761 PB L 74289 — Microdetermination of impurities in zinc. By Ahrens. In German. 1.50

1762 PB L 74289 — Charge slip for a document. In German. 1.50

The reports on Frames 1763-1804 were given at a meeting of the Inorganic-Scientific Commission held at Leverkusen, December 11 and 12, 1941.

1763-1768 PB L 74289 — Zinc sulfide luminous paints. By Podschig. In German. 1.50

1769-1775 PB L 74289 — Research on alumina and aluminum. By Noll. In German. 1.50

1776-1782 PB L 74289 — Purification of waste chlorine by means of solvents. By Jonas. In German. 1.50

1783-1794 PB L 74289 — The electron microscope and its use. By Kircher. In German. 1.50

1795-1796 PB L 74289 — Concentration of hafnium. By Sybertz. In German. 1.50

1797-1799 PB L 74289 — Chemical properties of the surface of active charcoal. By Brinkmann. In German. 1.50

1800-1802 PB L 74289 — A low-temperature filter for the laboratory. By Kwasnik. In German. 1.50

1803-1804 PB L 74289 — A new headpiece for cylinders used for gas washing. By Kwasnik. In German. 1.50

Reports on Frames 1805-1843 are from a meeting of same commission, Bitterfeld, March 12, 1942.

1805-1818 PB L 74289 — The speed of reaction of magnesium oxide and carbon at elevated temperatures. By v. Mack and Morawietz. In German. 1.50

1819-1834 PB L 74289 — Electrolysis of hydrochloric acid. By Hölemann. In German. 2.00

1835-1840 PB L 74289 — Reductions of metal oxides with silicon, forming silicon monoxide. By Morawietz. In German. 1.50

1841-1843 PB L 74289 — Silico-thermal production of metals and ferrous alloys, particularly ferrous vanadium. By Meyer-Bitterfeld. In German. 1.50

PB L 73926. I. G. FARBENINDUSTRIE A. G. Indices for organic preparations. (FIAT Microfilm Reel A 56, Frames not numbered) 1939-1942. 770 f. Price: Microfilm-$6.00 - Enlargement print-$77.00
This FIAT microfilm reel lists, in numerical order, the various types of dyes, detergents, textile aids, etc. The products are identified by numbers and sometimes also by trade names. Chemical compositions and processes are not disclosed in this document. The frames are not numbered. In German.

PB L 73942. I. G. FARBENINDUSTRIE A. G. Indices of organic intermediates. (FIAT Microfilm Reel A 53, Frames 1-427) 1936. 427 f. Price: Microfilm-$5.25 - Enlargement print-$43.00
This FIAT microfilm reel contains two indices of the organic intermediates produced by I. G. Farben as of 1936. The first index is an alphabetical list of trade names, the second of scientific names. Since each product is given an I. G. number, and its molecular weight is disclosed, it will be possible to find in the second index the scientific names corresponding to the individual trade names in the first index. Formulas or processes, however, are not disclosed in this reel. In German.

PB L 74727. I. G. FARBENINDUSTRIE A. G. Production and application of various chemicals. (FIAT Microfilm Reel M 96, Frames 5618-6415) 1936-1944. 797 f. Price: Microfilm-$6.00 - Enlargement print-$80.00
This FIAT microfilm reel contains reports on inorganic chemicals, 1940-1944 (Frames 5618-6218) and reports on textile aids and detergents, 1936-1939 (Frames 6219-6415). 57 individual reports, listed below, will be available as enlargement prints. Please include PB and frame numbers when ordering an individual item. These reports are in German.

Frames	Title	Price
5618-5625 PB L 74727	Deferrization of aluminum salts. 1940. In German.	$1.50
5626-5657 PB L 74727	Production of concentrated sulfur dioxide. 1940. In German.	3.50
5658-5711 PB L 74727	Pilot plant for thionylchloride. 1941. In German.	5.50
5712-5719 PB L 74727	Production of hydrazine from ammonia. 1941. In German.	1.50
5720-5745 PB L 74727	Hydroxylamine from sodium nitrite and sodium bisulfite. 1941. In German.	3.00
5746-5751 PB L 74727	Production of caustic soda from Glauber's salt. 1941. In German.	1.50
5752-5759 PB L 74727	Corrosion tests of steels in catalytic oxidation of sulfur dioxide. 1941. In German.	1.50
5760-5777 PB L 74727	Processing of lead sludges. 1941. In German.	2.00
5778-5789 PB L 74727	Production of arsenates by electrolytic oxidation of arsenites. 1941. In German.	1.50
5790-5805 PB L 74727	Filtration and drying of chrome alum. 1941. In German.	2.00
5806-5811 PB L 74727	Anhydrous ferrous chloride. 1941. In German.	1.50
5812-5817 PB L 74727	Preparation of cuprous chloride. 1941. In German.	1.50
5818-5879 PB L 74727	Obtaining [illegible] sulfur dioxide from gases used for roasting by means of aluminum oxychloride solutions. 1941. In German.	6.50

See also Frames 5990-6029, below.

5880-5894 PB L 74727 — Production of alkali arsenites by oxidation of arsenites with oxygen or air. 1942. In German. 1.50

5895-5912 PB L 74727 — Experiments for eliminating difficulties in alkali-chloride electrolysis. 1942. In German. 2.00

5913-5923 PB L 74727 — Production of lead arsenate. 1942. In German. 1.50

5924-5934 PB L 74727 — "Bentonit" research. 1942. In German. 1.50

5935-5959 PB L 74727 — Obtaining pure sulfur dioxide from gases used for roasting by means of diethylformamide. 1942. In German. 2.50

5960-5968 PB L 74727 — An American process for chlorine production. 1942. (A. W. Hixson and A. H. Teaney in Ind. Engin. Chem. 33 (1941), 1472.) In German. 1.50

5969-5983 PB L 74727 — Dehydration of sodium sulfide. 1942. In German. 1.50

5984-5989 PB L 74727 — Testing of zinc and aluminum salts as fireproofing agents. 1942. In German. 1.50

5990-6029 PB L 74727 — Obtaining pure sulfur dioxide from gases used for roasting by means of aluminum oxichloride solutions. 1942. In German. 4.00
See also Frames 5818-5879, above.

6030-6042 PB L 74727 — Preparation of chlorosulfonic acid from SO_2, Cl_2 and H_2O. 1942. In German. 1.50

6043-6048 PB L 74727 — Preparation of silicon tetrachloride from silicic acid, carbon, and chlorine. 1943. In German. 1.50

6049-6053 PB L 74727 — Reduction of sodium sulfate with sulfur. 1943. In German. 1.50

6054-6063 PB L 74727 — Concentration and purification of waste sulfuric acid. 1943. In German. 1.50

6064-6076 PB L 74727 — Production of sulfur dioxide from sulfuric acid and sulfur. 1943. In German. 1.50
Not very legible.

6077-6078 PB L 74727 — Determination of mixtures of sodium bisulfate and sodium pyrosulfate. 1943. In German. 1.50

6079-6091 PB L 74727 — The use of "Chloropren" in linings. 1943. In German. 1.50

6092-6106 PB L 74727 — Continuous production of hydroxylammonium salts from nitrite and bisulfite. 1943. In German. 1.50

6107-6132 PB L 74727 — Production of zinc hyposulfite from zinc amalgam and sulfur dioxide. 1943. In German. 3.00

6133-6153 PB L 74727 — Information on thionylchloride. 1943. In German. 2.50

6154-6175 PB L 74727 — Production of anhydrous hydrazine from hydrazinesulfate and liquid ammonia. 1944. In German. 2.50

6176-6197 PB L 74727 — Production of chlorosulfonic acid. 1944. In German. 2.50

6198-6218 PB L 74727 — Improvement of the thionylchloride process. 1944. In German. 2.50

6219-6236 PB L 74727 — Bucking aids. 1936. In German. 2.00

6237-6240 PB L 74727 — Testing of "Palatinechtsalz O." 1936. In German. 1.50

6241-6247 PB L 74727 — Elimination of the discoloring effect of Rhine water on wool. 1936. In German. 1.50

6248-6251 PB L 74727 — Foaming power of alcohol sulfonates in hard water. 1937. In German. 1.50

6252-6259 PB L 74727 — Testing of detergents containing perborates in the presence of metallic copper. 1937. In German. 1.50

6260-6264 PB L 74727 — Calcium salt deposits in laundering with mixtures similar to "Persil." 1937. In German. 1.50

6265-6275 PB L 74727 — Complex-forming organic water softeners. n. d. In German. 1.50

6276-6304 PB L 74727 — "Trilon A" - "Calgon." (Tests.) 1936. In German. 3.00

6305-6315 PB L 74727 — Comparison of soap with synthetic detergents. n. d. In German. 1.50

6316-6334 PB L 74727 — Tests with "Trilon A" and "Trilon B" in laundering with hard water. 1937. In German. 2.00

6335-6345 PB L 74727 — Tests of "Soromin AFK" and "AFZ." 1936. In German. 1.50

6346-6352 PB L 74727 — Increasing the weight of cellulose wool fibers. 1936. In German. 1.50

6353-6361 PB L 74727 — Drying of cellulose wool. 1936. In German. 1.50

6362-6371 PB L 74727 — "Mersasin" sulfonates. (Tests.) 1936. In German. 1.50

6372-6374 PB L 74727 — Production of lustrous, transparent textiles and of lusters on textiles by means of aqueous dispersions of synthetic substances. 1936. In German. 1.50

6375-6382 PB L 74727 — Treatment of hemp-"Cotonin." 1936. In German. 1.50

6383-6388 PB L 74727 — Improvement of cassin fibers. 1939. In German. 1.50

6389-6390 PB L 74727 — Plasticizing cellophane. 1939. In German. 1.50

6391-6394 PB L 74727 — "Mersasin"-sulfonate combined with soap. 1939. In German. 1.50

6395-6399 PB L 74727 — The effect of textile aids on the possibility to dye cellulose wool. 1939. In German. 1.50

6400-6401 PB L 74727 — Laundering effect of preparation "DOM B". 1939. In German. 1.50

6402-6406 PB L 74727 — Exposing to light "Vulkanecol" dyes in the presence of textile aids. 1939. In German. 1.50

6407-6415 PB L 74727 — Experiments for hydrophobing cellulose wool. 1939. In German. 1.50

PB L 25620. I. G. FARBENINDUSTRIE A. G. Reports on plastics, Leuna Werke and Ammonia Werke, Merseburg. (FIAT Microfilm Reel C and R 177, Frames 1-688) Apr 1946. 688 f. Price: Microfilm-$6.00 - Enlargement print-$69.00
There are 43 individual items of this FIAT microfilm reel listed below. They will be available as enlargement prints only. Please give PB number and frame numbers when ordering individual items from this microfilm reel. In German.

Miscellaneous Chemicals (contd)

Frames	Title	Price
	Kutsko reports:	
1-9 PB L 25620	Alkydones. In German. Illegible.	$1.50
10-20 PB L 25620	Permanent coatings for tanning pits. In German. Illegible.	1.50
21-85 PB L 25620	General characteristics of alkydals. In German. Illegible.	6.50
86-98 PB L 25620	Notes on benzyl cellulose lacquers. In German. Illegible.	1.50
99-103 PB L 25620	Benzyl cellulose for accumulator boxes. In German. Illegible.	1.50
104-108 PB L 25620	Manufacture and use of benzyl cellulose lacquers. In German. Will reproduce poorly.	1.50
109-111 PB L 25620	Benzyl cellulose as lacquer raw material. In German. Illegible.	1.50
112-113 PB L 25620	Possibility of use for benzyl cellulose. In German.	1.50
114-115 PB L 25620	Gallit L. In German.	1.50
116-131 PB L 25620	Cellulose esters and ethers as lacquer raw materials. In German.	2.00
132-133 PB L 25620	Propylphthalate - palatinol T. In German.	1.50
134-136 PB L 25620	Palatinol T diprowylphthalate. In German.	1.50
137 PB L 25620	Diglycol-di-isobutylate. In German.	1.50
138-139 PB L 25620	New product registration. Binding agent for acid resistance. In German.	1.50
140-168 PB L 25620	Present results in the field of protective packings. In German. Illegible.	3.00
169-192 PB L 25620	New experience with wires and cables, insulated or cased respectively with artificial materials. In German.	2.50
193-202 PB L 25620	New luminous paints. In German.	1.50
203-205 PB L 25620	Experience in respect to the use of aromatic hydrocarbons by other solvents. In German. Illegible.	1.50
206-222 PB L 25620	Valuation of middle range boiling solvents. In German. Illegible.	2.00
223-233 PB L 25620	Experience with further toluolene substitutes in the lacquer industry. In German. Illegible.	1.50
234-238 PB L 25620	Solvent problem by utilizing "Perzut" in the tropics. In German. Illegible.	1.50
239-252 PB L 25620	Experience of evaluation between butylacetate 100% respectively 85% isolbexylacetate, ethylglycol, propylglycol and butoxyl. In German. Illegible.	1.50
253-263 PB L 25620	Comparative tests of methylethyl ketone, acetic ester and propylacetate. In German. Illegible.	1.50
264-286 PB L 25620	Evaluation of secondary butylacetate in comparison to normal butylacetate and polyculvane B. In German.	2.50
287-289 PB L 25620	Nitrocellulose emulsion. In German.	1.50
290-299 PB L 25620	Preparation of oil-free and weather-proof wood lacquers. In German.	1.50
300-306 PB L 25620	Drying oils. In German.	1.50
307-318 PB L 25620	Use of "Wofesit" (Wolfen-Farben-fabrikat). In German. May reproduce poorly.	1.50
	Miscellaneous reports on "Leuna Werke" and on "Ammonia Werke Merseburg."	
319-332 PB L 25620	Manufacture of hydroxylamine. In German. May reproduce poorly.	1.50
333-339 PB L 25620	Describing the production of krypton at Leuna. In German. Illegible.	1.50
340-341 PB L 25620	Manufacture of carbonic acid. In German.	1.50
342-343 PB L 25620	Manufacture of ethylene by oxygen-vacuum-process. In German.	1.50
344-345 PB L 25620	Process for obtaining mono-, di-, and trimethylamine. In German.	1.50
346 PB L 25620	Hydrogenation of phenols. In German.	1.50
347-350 PB L 25620	Refining phenol oil. In German.	1.50
351-374 PB L 25620	Removing phenol from waste liquors by extraction with tricresyl phosphate. In German.	2.50
375-394 PB L 25620	Filtration of coal sludge from hydrogenation. In German. May reproduce poorly.	2.00
395-489 PB L 25620	Report on the start of operating the plant Merseburg 493 (Sept. 1, 1937 - Apr. 1, 1938). In German.	9.50
490-549 PB L 25620	Annual reports of the nitrogen and oxygen factory and affiliated plants, 1938-1942. (Ammonia Werke Merseburg). In German. Some pages are illegible.	6.00
550-619 PB L 25620	Gas compressors at Ammonia Works Merseburg. 1941. In German.	7.00
	Plastics (Miscellaneous). Three laboratory reports on polyamides. One laboratory report on rubber from Kok-Saghyz roots.	
620-644 PB L 25620	The behavior of polyamides at higher temperature. In German.	2.50
645-664 PB L 25620	Examination of polyamide fibers by X-rays. In German.	2.00
665-682 PB L 25620	Investigation of the processes occurring in stretching superpolyamide fibers. In German.	2.00
683-688 PB L 25620	Report on experiments on processing 225 kg of Kok-Saghyz roots. In German.	1.50

Miscellaneous Chemicals (contd)

PB L 73790. I. G. FARBENINDUSTRIE A. G., BITTERFELD GERMANY. Miscellaneous chemical reports. (FIAT Microfilm Reel RB-202, Frames 1821-2239) 1930-1931. 419 f. Price: Microfilm-$5.00 - Enlargement print-$43.00.

This reel was prepared by FIAT investigators in Germany. 32 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $5.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1821-1839 PB L 73790	Experiments for processing Cottrell dust from the phosphorus furnaces. By Schoppe and Schulze. Dec 11, 1930. In German.	$1.50
1839-1848 PB L 73790	Experiments obtained in the decomposition of chromium ore in a retort with a paddle agitator. By Suchy and Gruetzner. Dec 18, 1930. In German.	2.00
1849-1892 PB L 73790	Investigations on the influence of foreign gases on the explosiveness of hydrogen-oxygen mixtures. By Fleureus. Jan 16, 1931. In German.	4.50
1893-1899 PB L 73790	Production of carbon disulfide from pyrites. By Reuhke. Jan 24, 1931. In German.	1.50
1900-1907 PB L 73790	Simultaneous production of magnesium oxide and calcium chlorate. By Grützner. Jan 27, 1931. In German.	1.50
1908-1919 PB L 73790	X-ray-investigation of chloride of lime. By Schmid and Siebel. Jan 27, 1931. In German.	1.50
1920-1937 PB L 73790	Efficiency test with Chibin apatite in the newly constructed furnaces at Bitterfeld. By Schoppe. Feb 27, 1931. In German.	1.50
1938-1938 PB L 73790	Production of magnesium oxide from half-burnt hydrated or carbonized dolomite by air sifting. By Brause. Mar 10, 1931. In German.	1.50
1939-1963 PB L 73790	The utilization of Piesteritz Cottrell dust by decomposition with nitric acid. By Schulze. Mar 12, 1931. In German.	2.50
1964-1967 PB L 73790	Experiments on the production of bleaching earths. By Goehring. Mar 9, 1931. In German.	1.50
1968-1974 PB L 73790	Electrolytic oxidation of chromium hydroxide. By Goehring. Mar -Jun 1930. In German.	1.50
1975-1985 PB L 73790	Disodium phosphate and monocalcium phosphate. By Schulze. Mar 29, 1931. In German.	1.50
1986-1990 PB L 73790	Desulfurization of benzene. By Goehring. May 8, 1931. In German.	1.50
1991-2006 PB L 73790	Experiments on processing mixtures of hydrogen and oxygen. By Michel. May 18, 1931. In German.	2.00
2007-2022 PB L 73790	Production of pure aluminum chloride from pure alumina for the manufacture of indanthrene. By Brause. May 20, 1931. In German.	2.00
2023-2034 PB L 73790	The utilization of hydrogen. By Goehring. May 29, 1931. In German.	1.50
2035-2041 PB L 73790	Experiments concerning the production of "Synthoperil". By Krause. Jun 4, 1931. In German.	1.50
2042-2049 PB L 73790	Production of ferromolybdenum from molybdenum residues (and molybdenum lime) in an electric furnace. By Lewes. Jun 11, 1931. In German.	1.50
2050-2059 PB L 73790	Production of brittle alloys as reducing agents for thermite reactions. By Seliger. Jun 8, 1931. In German.	1.50
2060-2070 PB L 73790	Production of double superphosphate from rock phosphate with phosphoric acid and hydrochloric acid or nitric acid. By Schulze. Jun 22, 1931. In German.	1.50
2071-2081 PB L 73790	The purification of hydrogen from the chlorate plant. By Michel. Jul 2, 1931. In German.	1.50
2082-2090 PB L 73790	Production of magnesium oxide from serpentine. By Gruetzner. Jul 3, 1931. In German.	1.50
2091-2105 PB L 73790	The corrosion of silver in melted caustic soda (technical). By Michel. Jul 9, 1931. In German.	1.50
2106-2142 PB L 73790	The attack of caustic soda on cast iron alloyed with nickel and on pure nickel. By Michel and Schultze. Jul 22, 1931. In German.	4.00
2143-2145 PB L 73790	Distribution of sodium chloride during concentration of salt solutions. By Goehring. Jul 25, 1931. In German.	1.50
2146-2149 PB L 73790	Removal of sodium from potassium carbonate. By Goehring. Jul 25, 1931. In German.	1.50
2150-2157 PB L 73790	Testing the materials of a revolving furnace for the decomposition of chromium ores. By Seliger. Jul 29, 1931. In German.	1.50
2158-2166 PB L 73790	Reduction of chromic oxide with hydrogen in the presence of iron. By Seliger. Aug 6, 1931. In German.	1.50
2167-2177 PB L 73790	Purification of hydrogen from the chlorate plant. By Michel. Sep 9, 1931. In German.	1.50
2178-2195 PB L 73790	Analysis of coked briquets in the magnesium chloride department. By Gruetzner. Sep 11, 1931. In German.	2.00
2196-2211 PB L 73790	Suggestions for increasing the sales of phosphoric acid. By Reuhke. Sep 3, 1931. In German.	2.00
2212-2239 PB L 73790	Decomposition of beryl with ammonium fluoride. By Krause. Sep 14, 1931. In German.	3.00

PB L 73790-S. I. G. FARBENINDUSTRIE A. G., BITTERFELD, GERMANY. Miscellaneous chemical reports. (FIAT Microfilm Reel RB-202, Frames 1821-2239, abstract cards) 1930-1931. 46 p. Price: Microfilm-$1.00 - Photostat-$4.00.

Brief abstracts of the individual items on the above reel RB-202, PB 73790, prepared by FIAT personnel in Germany.

Miscellaneous Chemicals (contd)

PB L 73791. I. G. FARBENINDUSTRIE A. G., BITTERFELD, GERMANY. Reports dealing with chemicals. (FIAT Microfilm Reel RB-205, Frames 2980-3356) 1933-1934. 378 f. Price: Microfilm-$4.75 - Enlargement print-$38.00.
This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $4.75. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
2980-2987 PB L 73791	Production of titanium carbide. By Seliger. Apr 28, 1933. In German.	$1.50
2988-3034 PB L 73791	The electrolytic production of potassium dichromate. By Schulze. May 30, 1933. In German.	5.00
3035-3052 PB L 73791	Investigations on material for caustic alkali evaporator tubes. By Seliger. Jun 23, 1933. In German.	2.00
3053-3074 PB L 73791	Studies on crust formation in the phosphorus pentachloride plant. By Michel. Jul 3, 1933. In German.	2.50
3075-3084 PB L 73791	Comparison of the production of phosphoric acid in the blast furnace with that in the electric furnace. By Reuhke. Jul 20, 1933. In German.	1.50
3085-3099 PB L 73791	Production of synthetic pyrolusite by anodic oxidation of manganese sulfate. By Marx. Jul 27, 1933. In German.	1.50
3100-3120 PB L 73791	Chlorination of magnesium oxychlorides. By Michel. Jul 29, 1933. In German.	2.50
3121-3199 PB L 73791	The spontaneous decomposition (exploding) of "Perchloron." (Technical calcium hypochlorite.) By Ehlers and others. May 24, 1933. In German.	6.00
3200-3203 PB L 73791	Oxygen-generating tablets made of "Perchloron" (calcium hypochlorite) and sodium peroxide. By Neukirch. Jul 20, 1933. In German.	1.50
3204-3225 PB L 73791	Testing of binding agents for carbon manufacture. By Neukirch. Aug 7, 1933. In German.	3.50
3226-3238 PB L 73791	Tests of inflammability of organic material treated with sodium chlorate. By Neukirch. Sep 5, 1933. In German.	1.50
3239-3246 PB L 73791	The suitability of magnesite deposits in Silesia as a basis for magnesium production. By Michel. Oct 3, 1933. In German.	1.50
3247-3262 PB L 73791	Tests on the crystallization of potassium chlorate in tooth pasts and of the agglomeration of potassium chlorate. By Neukirch. Sep 25, 1933. In German.	2.00
3263-3266 PB L 73791	Solubility of potassium carbonate along with sodium carbonate, potassium chloride, potassium sulfate, and potassium ortho phosphate in water at 70°C. By Marx. Oct 19, 1933. In German.	1.50
3267-3280 PB L 73791	Utilization of smoke pellets by chlorination. By Reuhke. Oct 27, 1933. In German.	1.50
3281-3309 PB L 73791	Production of regulus ferrobarus. By Seliger. Nov 3, 1933. In German.	3.00
3310-3349 PB L 73791	Production of silicon tetrachloride from ferrosilicon and chlorine in a pilot plant. By Michel. Jan 20, 1934. In German.	4.00
3350-3354 PB L 73791	Fractional crystallization of potassium carbonate solution of the chromate plant by gradual concentration in a vacuum. By Marx. Feb 8, 1934. In German.	1.50

PB L 73791-S. I. G. FARBENINDUSTRIE A. G., BITTERFELD, GERMANY. Reports dealing with chemicals. (FIAT Microfilm Reel RB-205, Frames 2980-3356, abstract cards). 1933-1934. 33 p. Price: Microfilm-$1.00 - Photostat-$3.00.
Brief abstracts of the individual items on the above reel RB-205, PB 73791, prepared by FIAT personnel in Germany.

PB L 70168. I.G. FARBENINDUSTRIE A.G., FRANKFURT AM MAIN, GERMANY. Reports in organic preparations and related subjects. (FIAT Microfilm Reel G-18, Frames 7149 - 8254). 1924 - 1944. 1115 f. Price: Microfilm-$6.00 - Enlargement Prints-$111.50
This reel was prepared by FIAT investigators in Germany. 153 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
7149 - 7167 PB L 70168	Monovinylacetylene and chloroprene. By Jokusch and others. Oct 21/26, Sep 7, 1942. In German.	$2.00
7168 - 7171 PB L 70168	These frames are missing.	
7172 - 7176 PB L 70168	Determination of acetaldehyde, crotonaldehyde, acetone and acetic acid in aqueous solutions. By Grassner. Oct 15, 1935. In German.	1.50
7177 - 7180 PB L 70168	Simultaneous determination of acetaldehyde, crotonaldehyde and aldol. By Berndt. Oct 21,1938. In German.	1.50
7181 - 7191 PB L 70168	Acetaldehyde. By Hanke. Jan 5, 1937. In German.	1.50
7192 - 7194 PB L 70168	Acetoacetic ester. (I.G. analysis No. 126). In German.	1.50
7195 - 7201 PB L 70168	Determination of acetone. By Hanke. Jan 30, 1940. In German.	1.50
7202 - 7207 PB L 70168	Sodium-bichromate. By Hanke. Dec 21/22, 1939. In German.	1.50
7208 - 7214 PB L 70168	Determination of acetylene in oxygen. By Hanke. Mar 13, 1941 In German.	1.50

7215 - 7216 PB L 70168 **Determination of aldol.** By Hanke. n.d. In German. 1.50

7217 - 7219 PB L 70168 **Simultaneous determination of acetaldehyde, crotonaldehyde and aldol.** In German. 1.50

7220 - 7222 PB L 70168 **Determination of methanol and ethanol.** By Hanke. Dec 2, 1938. In German. 1.50

7223 - 7226 PB L 70168 **Determination of aluminum metal in aluminum shavings.** By Hanke. May 27, 1940. In German. 1.50

7227 PB L 70168 **"Appretan HT".** By Hanke. Feb 17, 1942. In German. 1.50

7228 - 7264 PB L 70168 **Diethylether.** By Elvert and others. Feb./Sep 1938 to Feb 1944. In German. 4.00

7265 - 7267 PB L 70168 **Determination of the boiling point of liquids.** In German. 1.50

7268 - 7277 PB L 70168 **Ethyl acetate.** By Hanke. May 28, 1937. In German. 1.50

7278 PB L 70168 **Organic peroxides.** By Blumrich. Feb 17, 1941. In German. 1.50

7279 - 7280 PB L 70168 **Benzoyl peroxide.** Mar 12, 1941. In German. 1.50

7281 - 7285 PB L 70168 **Sodium bichromatic.** In German. 1.50

7286 - 7292 PB L 70168 **Distilling apparatus.** In German. 1.50

7293 - 7299 PB L 70168 **Butanol.** By Hanke. Aug 24, 1934. In German. 1.50

7300 - 7302 PB L 70168 **Determination of the boiling point of liquids.** In German. 1.50

7303 PB L 70168 **Copper catalyst.** By Elvert. Nov 12, 1943. In German. 1.50

7304 PB L 70168 **Butyric acid.** By Hanke. Mar 24, 1943. In German. 1.50

7305 - 7316 PB L 70168 **Butyl acetate.** By Hanke. Feb 23, to Aug 27, 1937. In German. 1.50

7317 PB L 70168 **Butylurethane.** By Hanke. Nov 10, 1938. In German. 1.50

7318 - 7319 PB L 70168 **Butyraldehyde.** By Hanke. Jan 22, 1942. In German. 1.50

7320 - 7321 PB L 70168 **Note on the back of a page of a progress report from Leverkusen, with a bibliography on hydrocarbons.** In German. 1.50

7322 - 7323 PB L 70168 **Chlorethanesulfonic acid.** By Hanke. Jan 13, 1938. In German. 1.50

7324 - 7325 PB L 70168 **Determination of the gas mixture in acetic acid generators.** By Hanke. Sep 16, 1937. In German. 1.50

7326 - 7340 PB L 70168 **Crotonaldehyde.** By Blumrich and Hanke. Oct 28, 1937, Jan 9, 1940. In German. 1.50

7341 - 7342 PB L 70168 **Notes on oxidation products of crotonaldehyde on the back of a progress report from Leverkusen.** In German. 1.50

7343 PB L 70168 **Crotonic acid.** By Hanke. Apr 12, 1940. In German. 1.50

7344 - 7351 PB L 70168 **Distillation. (I.G. FARBEN analysis No. 20/1), for testing aliphatic and hydrocarbons.** Apr 2, 1924. In German. 1.50

7352 - 7354 PB L 70168 **Debutylcarbonate.** By Hanke. Mar 9, 1942. In German. 1.50

7355 PB L 70168 **Diglycol-dilsoheryllic acid ester.** Jul 13, 1938. In German. 1.50

7356 PB L 70168 **Determination of diglycolic acid, Na diglycolate, hydrochloric acid and NaCl.** By Hanke. Dec 29, 1942. In German. 1.50

7357 - 7358 PB L 70168 **Simultaneous determination of glycolic acid and diglycolic acid.** By Hanke. Apr 11, 1940. In German. 1.50

7359 PB L 70168 **Acrylic acid diphenylamide.** In German. 1.50

7360 - 7361 PB L 70168 **Acetic acid. (from Ekenig).** By Persiel. Sep 29, 1944. In German. 1.50

7362 - 7373 PB L 70168 **Acetic acid.** By Hanke. Jul 26, 1940 Dec 14, 1942. In German. 1.50

7374 - 7475 PB L 70168 **Determination of the gas mixture in acetic acid generators.** In German. 1.50

7376 - 7377 PB L 70168 **Points of solidification of mixtures of acetic acid and water.** In German. 1.50

7378 - 7379 PB L 70168 **Determination of acetic anhydride.** By Hanke. Feb 23, May 8, 1940. In German. 1.50

7380 - 7381 PB L 70168 **Explosion limits of mixtures of solvents and air.** By Hanke. Mar 25, 1941. In German. 1.50

7382 - 7405 PB L 70168 **Glycerogen.** By Hanke. Mar 17, to Jun 21, 1943. In German. 2.50

7406 PB L 70168 **Glycolic acid.** By Hanke. Mar 30, 1938. In German. 1.50

7407 - 7408 PB L 70168 **Simultaneous determination of glycolic acid and diglycolic acid.** In German. 1.50

7409 - 7411 PB L 70168 **Determination of acetal in hexanetriol.** By Hanke. Sep 29,/ Nov 4, 1940. In German. 1.50

7412 - 7413 PB L 70168 **"Hostalon IB".** By Hanke. Jan 10, 1939. In German. 1.50

7414 PB L 70168 **Isobutyric acid.** By Hanke. Mar 24, 1943. In German. 1.50

7415 - 7416 PB L 70168 **Isopropyl alcohol.** By Persiel. Oct 30, 1944. In German. 1.50

7417 PB L 70168 **Hüls' iodine solution.** Feb 1, 1938. In German. 1.50

7418 PB L 70168 **Sodium - bichromate.** In German. 1.50

7419 PB L 70168 **Camphoric acid heptyl ester.** By Hanke. Nov 11, 1940. In German. 1.50

7420 - 7422 PB L 70168 **Determination of methanol and ethanol.** In German. 1.50

7423 - 7424 PB L 70168 **Methoxybutyraldehyde.** By Hanke. Dec 16, 1937, Aug 23, 1943. In German. 1.50

751194 O—48——3—36

7425 - 7433 PB L 70168 — Methyl acetate. By Hanke. Jan 27, 1940. In German. 1.50

7434 - 7435 PB L 70168 — "Sarcosine". (Methylglycocoll). By Hanke. Jan 9, 1947. In German. 1.50

7436 - 7440 PB L 70168 — Methyltaurine. By Hanke. Jan 6, Dec 6, 1938. In German. 1.50

7441 - 7442 PB L 70168 — Mixing formula for making solutions of a fixed concentration. By Hanke. Dec 12, 1943. In German. 1.50

7443 - 7444 PB L 70168 — Monovinylacetylene. By Hanke. Aug 27, 1937. In German. 1.50

7445 - 7454 PB L 70168 — Sodium acetate. By Hanke. Jan 16, 1941. In German. 1.50

7455 PB L 70168 — Sodium nitrite solution (1/1 N). By Hanke. Dec 30, 1937. In German. 1.50

7456 PB L 70168 — Production of reagents. By Hanke. Feb 4, 1937. In German. 1.50

7457 PB L 70168 — Sodium nitrate solution (1/1 N). In German. 1.50

7458 - 7459 PB L 70168 — Oxalic acid diethylester. By Hanke. Oct 1939. In German. 1.50

7460 - 7461 PB L 70168 — Sodium hydroxyethanesulfonate. Mar 9, 1934. In German. 1.50

7462 - 7465 PB L 70168 — "Palatinols". (Phthalic acid ester). By Hanke. Aug 12 and Aug 22, 1940, May 13, 1942. In German. 1.50

7466 PB L 70168 — Technically pure paraldehyde. Jan 27, 1946. In German. 1.50

7467 PB L 70168 — Peroxide test with phenolphthalein reagent. By Hanke. Jan 10, 1939. In German. 1.50

7468 PB L 70168 — pH - measurement. By Spiecker. Jul 16, 1940. In German. 1.50

7469 PB L 70168 — Phosphoric acid. Sep 17, 1938. In German. 1.50

7470 - 7473 PB L 70168 — "Polysolvan O". By Hasmler and others. Feb 7, 1939, Jan 24, 1941, Aug 10, 1943. In German. 1.50

7474 - 7476 PB L 70168 — Polyvinylacetals, polyvinylketals. By Blumrich and Bandel. Jan 29, 1941. In German. 1.50

7477 - 7478 PB L 70168 — Propionaldehyde. By Hanke. Jun 22, 1942. In German. 1.50

7479 - 7480 PB L 70168 — Propionic anhydride. By Hanke. Mar 11, 1938. In German. 1.50

7481 - 7482 PB L 70168 — "Pyranton A" (Diacetone alcohol). By Hanke. Sep 5, 1940. In German. 1.50

7483 PB L 70168 — Determination of mercury. By Hanke. Sep 2, 1937. In German. 1.50

7484 PB L 70168 — Aluminum ethylate solution. By Hanke. Jan 22, 1937. In German. 1.50

7485 PB L 70168 — Production of reagents. In German. 1.50

7486 PB L 70168 — Peroxide reagent for ether. By Hanke. Jul 20, 1938. In German. 1.50

7487 PB L 70168 — Wijs' iodine solution. In German. 1.50

7488 - 7490 PB L 70168 — Sarcosine (Methylamino acetic acid). Nov 1934. In German. 1.50

7491 - 7493 PB L 70168 — Sarcosine (Methylglycocoll). In German. 1.50

7494 PB L 70168 — Production of reagents. In German. 1.50

7495 - 7496 PB L 70168 — Determining the boiling point of liquids. In German. 1.50

7497 PB L 70168 — Distillation of alcohol. By Hanke. Aug 11, 1938. In German. 1.50

7498 - 7499 PB L 70168 — Tricresyl phosphate. By Hanke and Bandel. Oct 18, 1941, May 20, 1942. In German. 1.50

7500 PB L 70168 — Butylurethane. In German. 1.50

7501 - 7509 PB L 70168 — Vinyl acetate. By Hanke and Fs....? Oct 28, 1937, Feb 18, 1941. In German. 1.50

7510 - 7514 PB L 70168 — Vinyl acetate catalysts. By Horn. Sep 20, 1940. In German. 1.50

7515 - 7732 PB L 70168 — Impurities in vinyl acetate. By Hanke and others. Dec 15, 1937 - Jun 22, 1943. In German. Frames 7519 - 7720 are missing due to faulty numbering. 2.00

7733 PB L 70168 — Vinyl acetate. In German. 1.50

7734 - 7735 PB L 70168 — Benzoic acid vinyl ester. By Hanke. Jan 18, 1943. In German. 1.50

7736 PB L 70168 — Vinyl-butyl ether. By Hanke. Aug 7, 1942. In German. 1.50

7737 PB L 70168 — Wijs' iodine solution. In German. 1.50

7738 - 7739 PB L 70168 — Two notes (irrelevant). In German. 1.50

7740 - 7758 PB L 70168 — Acetaldehyde from acetylene. By Lieseberg and Schneider. Mar 21, 1938. In German. 2.00

7759 - 7762 PB L 70168 — Gamma-methoxycrotonaldehyde. By Krasnalein and Criegee. Mar 26, 1938, Apr 18, 1938. In German. 1.50

7763 PB L 70168 — Frames missing.

7764 - 7780 PB L 70168 — Crotonic acid. By Leupold. Apr 20/23, 1942. In German. 2.00

7781 - 7787 PB L 70168 — Butanol from crotonaldehyde. By Elvert. Feb 28, 1938. In German. 1.50

7788 PB L 70168 — A note with headlines on the oxidation of crotonaldehyde. By Mack. Aug 30, 1934 and Feb 4, 1935. In German. 1.50

7789 - 7798 PB L 70168 — Crotonaldehyde. By Steinberger and Elvert. Sep 27, 1930 - Oct 1, 1936. In German. 1.50

7799 - 7802 PB L 70168 — Resistance of aluminum to acetic acid and acetic anhydride corrosion. By Hanke. Dec 5, 1940 - May 4, 1942. In German. 1.50

7803 - 7806 PB L 70168 — Resistance of copper to acetic acid corrosion. By Hanke. Jun 11/ 20, 1941. In German. 1.50

7807 - 7808 PB L 70168 — Resistance of a copper-V.A.S welded joint against acetic acid-vinyl acetate corrosion. By Hanke. Jan 11, 1940. In German. 1.50

7809 - 7811 PB L 70168 — The effect of copper in acetaldehyde oxidation. By Steinberger. Feb 12, 1931. In German. 1.50

7812 - 7840 PB L 70168 — The miscibility gap in the ternary mixture in extraction processes. By Matz. Oct 27, 1939. In German. 3.00

7841 - 7850 PB L 70168 — Similarity of filling material columns. By Matz, Dec 10, 1937. In German. 1.50

7851 - 7861 PB L 70168 — Reflux regulators and headpiece for laboratory rectification columns. By Matz. Apr 8, 1940. In German. 1.50

7862 - 7877 PB L 70168 — Reinforcing ratio in separation columns of various types. By Steinmetz. Mar 20,1936. In German. 2.00

7878 - 7935 PB L 70168 — Modern distillation technique. By Horn. Nov 1, 1940. In German. 6.00

7936 PB L 70168 F — Resistance of "Neoresit" against solvents. By Hanke. Feb 20, 1943. In German. 1.50

7937 PB L 70168 — Resistance of Phenytal against organic acids. By Hanke. Mar 19, 1943. In German. 1.50

7938 - 7939 PB L 70168 — Durability of chloroprene gaskets. By Hanke. Feb 17, 1943. In German. 1.50

7940 PB L 70168 — Resistance of "Atophan" (Phenytal) against organic liquids. By Hanke. Dec 2, 1942. In German. 1.50

7941 - 7943 PB L 70168 — Extraction device for liquid mixtures. By Matz. Aug 23, Sep 28, 1939. In German. 1.50

7944 - 7945 PB L 70168 — Azeotropic distillation. In German. 1.50

7946 PB L 70168 — Pressure distillation of acetaldehyde. Nov 24, 1938. In German. 1.50

7947 - 7948 PB L 70168 — Various distillation projects. By Moeller. Sep 23, 1936. In German. 1.50

7949 PB L 70168 — Distillation device. Mar 22, 1941. In German. 1.50

7950 - 7989 PB L 701 68 — Distillation and rectification tecnique. Apr 13, 1942. In German. 4.00

7990 - 7991 PB L 70168 — Resistance of "Buna". By Hanke. Sep 25, 1942, Jan 5, 1943. In German. 1.50

7992 PB L 70168 — Resistance of copper to acetic acid corrosion. In German. 1.50

7993 PB L 70168 — Resistance of "Neoresit" to solvent. In German. 1.50

7994 - 7996 PB L 70168 — Hydrogenation catalysts. By Kraemer. Jan 16, 1942. In German. 1.50

7997 - 8029 PB L 70168 — Poison effect of carbon monoxide on nickel hydrogenation catalysts. By Fuchs. Feb 10, 1941. In German. 3.50

8030 - 8050 PB L 70168 — Nickel catalyst poisons By Fuchs. Aug 11, 1941. In German. 2.50

8051 - 8055 PB L 70168 — Chloracetic acid from trichlorethylene. By Hilcken and others. Jan 15, 1941, Feb 23, Mar 9, 1942. In German. 1.50

8056 PB L 70168 — Isobutoxyacetic acid. Jul 26, 1938. In German. 1.50

8057 - 8060 PB L 70168 — 2-Ethylcrotonaldehyde. By Berndt. Jan 7, 1941. In German. 1.50

8061 - 8063 PB L 70168 — Separation of formic acid and acetic acid. By Hanke. Feb 19, 1943. In German. 1.50

8064 - 8066 PB L 70168 — Determination of formaldehyde in acetic acid. By Hanke. May 10, 1931, Jun 5, 1942. In German. 1.50

8067 - 8076 PB L 70168 — Acetic acid. By Hanke. Oct 8, 1941. In German. 1.50

8077 - 8078 PB L 70168 — Dimethylether. By H. Lange. Oct 15, 1942. In German. 1.50

8079 PB L 70168 — Resistance of steels against carbon monoxide. By Wehn. Jul 29, 1942. In German. 1.50

8080 - 8087 PB L 70168 — Acetic acid from methanol and carbon monoxide. By Moller. May 21, 1941. In German. 1.50

8088 - 8091 PB L 70168 — Organic acids. By Jokusch. Jan 27, 1941. In German. 1.50

8092 - 8098c PB L 70168 — Acetic acid from methanol and carbon monoxide. By Fuchs. Feb 13, 1942. In German. 1.50

8099 - 8100 PB L 70168 — Carbon monoxide generator. By Berger. Jul 28, 1942. In German. 1.50

8101 - 8128 PB L 70168 — Acetic acid from methanol and carbon monoxide. By Moller and Lange. Jul 22, 1941, Jul 21, 1942. In German. 3.00

8129 - 8143 PB L 70168 — Solvents and preliminary products. By Moller. Apr 27, 1939. In German. 1.50

8144 - 8148 PB L 70168 — Extraction of acetic acid from aqueous solutions. By Matz. Dec 4, 1939. In German. 1.50

8149 - 8150 PB L 70168 — Acetic acid vapors (recovery). Jan 30, 1939. In German. 1.50

8151 - 8163 PB L 70168 — Acetic acid from acetaldehyde. By Baumann. Apr 15, 1939. In German. 1.50

8164 - 8168 PB L 70168 — Acetic anhydride. By Lösch. Nov 4, 1938. In German. 1.50

8169 - 8181 PB L 70168 — Directions for the production of acetic acid from acetaldehyde.

By Hanke. Dec 1, 1937.
In German. 1.50

8182 - 8186 PB L 70168 Acetic acid plant producing by continuous oxidation of acetaldehyde. By Be..... Jul 7, 1939. In German. 1.50

8187-8195 PB L 70168 Ethylene oxide production from ethylene. By Wurster and Pfannmiller. May 20, 1939. In German. 1.50

8196 - 8202 PB L 70168 Ethylene chloride. By Wohlers. May 4, 1939. In German. 1.50

8203 - 8264 PB L 70168 Diethyl ether. By Elvert and others. Feb 12, 1938 to Feb 21, 1944. In German. 5.50

PB L 70168-S. I.G. FARBENINDUSTRIE A.G., FRANKFURT AM MAIN, GERMANY. Reports in organic preparations and related subjects. (FIAT Microfilm Reel O-18, Frames 7149-8264, abstract cards). 1924 - 1944. 157 p. Price: Microfilm-$4.00 - Photostat-$11.00
Brief abstracts of the individual items on the above reel O-18, PB 70168, prepared by FIAT personnel in Germany.

PB L 73754. I. G. FARBENINDUSTRIE A. G., LEVERKUSEN, GERMANY. Various investigations on dyes and miscellaneous chemicals. (FIAT Microfilm Reel L 85, Frames 2080-3014) 1936-1938. 935 f. Price: Microfilm-$6.00 - Enlargement print-$93.50
This reel was prepared by FIAT investigators in Germany. 125 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
2080 - 2093 PB L 73754	Preparation of 1-phenylanthroquinone. By Kramer. May 25, 1937. In German.	$1.50
2094 - 2098 PB L 73754	Action of chlorosulfonic acid on phthalide. By Tietze. Jun 4, 1937. In German.	1.50
2099 - 2101 PB L 73754	Aliphatic carboxylic acids and aldehydes. By Metzger. Jun 11, 1937. In German.	1.50
2102 - 2106 PB L 73754	Organic phosphorus compounds. By Ebersberger. May 20,-1937. In German.	1.50
2107 - 2111 PB L 73754	Organic sulfur compounds. By Knöpfle. Jun 10, 1937. In German.	1.50
2112 - 2118 PB L 73754	Effect of ethylene oxide or butylene oxide on moth preventives. By Münsel. Jan 1937. In German.	1.50
2119 - 2121 PB L 73754	Aliphatic carboxylic acids. By Eck. Apr 2, 1937. In German.	1.50
2122 - 2128 PB L 73754	Dye-metal complexes synthesized by 8-aminoquinoline, 8-aminoquinaldine, aminotriazolcarboxylic acid or o-aminophenoxy acetic acid. By Petersen. Apr 5, 1937. In German.	1.50
2129 - 2131 PB L 73754	Artificial resins, chlorophenanthrene chloride. By Engelhardt. March/April 1937. In German.	1.50
2132 - 2141 PB L 73754	Production of diphenyl 3,4-dicarboxylic acid. By Rinke. Feb/Mar 1937. In German.	1.50
2142 - 2145 PB L 73754	Synthetic washing and wetting agents. By Ballauf. Apr 5, 1937. In German.	1.50
2146 - 2153 PB L 73754	Wetting agent for pigment dyes. By Keppler. Apr 5, 1937. In German.	1.50
2154 - 2157 PB L 73754	Production of various naphthalene and phthalide derivatives. By Tietze. Apr 12, 1937. In German.	1.50
2158 - 2160 PB L 73754	Production of chlorinated rubber soluble in acetone. By Hübner. Apr 7, 1937. In German.	1.50
2161 - 2174 PB L 73754	New insecticides from the series of organic compounds, containing phosphorus-nitrogen. By Schrader. Dec 15, 1936. In German.	1.50
2175 - 2194 PB L 73754	Dye intermediates By Hoyer. Dec 1, 1936. In German.	2.00
2195 - 2203 PB L 73754	Azo dyes of the pyrazolone and benzidine series and polyazo dyes of the benzene and naphtalene series. By Delfs. Oct 30, 1936. In German.	1.50
2204 - 2211 PB L 73754	"Benzo" fast and "Sirius" azo dyes. By Stösser. Nov 30, 1936. In German.	1.50
2212 - 2215 PB L 73754	New substantive azo dyes from derivatives of benzoic acids. By Petersen. Nov 30, 1936. In German.	1.50
2216 - 2219 PB L 73754	New substantive azo dyes and dyes for acetate rayon. By Kleiner. Nov 28, 1936. In German.	1.50
2220 - 2227 PB L 73754	Rubber auxiliaries. By Bogemann. Nov 25, 1936. In German.	1.50
2228 - 2233 PB L 73754	Production of various derivatives of terephthalic acid, of 1,8-aminonaphthol and of azo dyes from aminophthalonitrile and hydroxynaphthofurazan. By Ballauf. Nov 10, 1936. In German.	1.50
2234 - 2243 PB L 73754	"Rapidogen" printing. By Schmelzer. Oct 30, 1936. In German.	1.50
2244 - 2251 PB L 73754	Derivatives of anthraquinone such as 1,2-diamino-3-methyl-anthraquinone. By Rösch. Oct 15, 1936. In German.	1.50
2252 - 2253 PB L 73754	Dyes for waxes and varnishes. By Knoche. Oct 30, 1936. In German.	1.50
2254 - 2266 PB L 73754	Experimental studies in various fiels of organic chemistry. By Dobmair. n.d. (1936-37?) In German.	1.50
2267 - 2271 PB L 73754	The production of acetone sulfonic acid, aminopropane sulfonic acid, higher taurines, sodium stearylaminopropane-sulfonate and similar compounds. By Doser. Nov 21, 1936. In German.	1.50
2272 - 2275 PB L 73754	Derivatives of 2-bromo-ethanol. By Ebersberger. Sep and Oct 1936. In German.	1.50

2276 - 2280 PB L 73754 — 1,8-Aminonaphthol-2,5-disulfonic acid. By Tietze. Nov 2, 1936. In German. 1.50

2281 - 2285 PB L 73754 — Insecticides, softening agents. By Siefken. Oct 29, 1936. In German. 1.50

2286 - 2292 PB L 73754 — "Sulans" By Schrader. Oct 28, 1936. In German. 1.50

2293 - 2296 PB L 73754 — Testing "Benso" Fast dyes and 1-anilino-8-naphthol. By Stüsser. Oct 21, 1936. In German. 1.50

2297 - 2300 PB L 73754 — Technical production of beta-fluorethyl alcohol. By Schrader. Oct 20, 1936. In German. 1.50

2301 - 2307 PB L 73754 — Aminobenzene-sulfonic ester. By Schweiter. Oct 14, 1936. In German. 1.50

2308 - 2311 PB L 73754 — Testing wetting, hydrophobing agents. By Ballauf II. Oct 6, 1936. In German. 1.50

2312 - 2322 PB L 73754 — Naphthol AS dyes. By Muth. Oct 6, 1936. In German. 1.50

2323 - 2326 PB L 73754 — Action of nitric acid on aminoanthraquinone derivatives and condensation of chloromethylphthalimide with anthrone. By Haller. Sep 14, 1936. In German. 1.50

2327 - 2338 PB L 73754 — Softeners and vulcanization accelerators. By Zancker. Sep 8, 1936. In German. 1.50

2339 - 2342 PB L 73754 — Nitration of derivatives of the terephthalic acid diethylamide, the production of 1,2,4 benzothinitrile and 2,4-dichloro-beta-nitro-alpha-naphthol. By Ballauf I. Sep 3, 1936. In German. 1.50

2343 - 2344 PB L 73754 — Derivatives of benzidine, diphenylurea and the like. By Taube. Sep 3, 1936. In German. 1.50

2345 - 2346 PB L 73754 — Production of highly viscous, chlorinated rubber. By Blömer. Jul 31, 1936. In German. 1.50

2347 - 2348 PB L 73754 — Chlorination of a rubber-Opanol-mixture, degradation of rubber with toluene sulfinic acid and stabilization of chlorinated rubber. By Blömer. Jul 31, 1936. In German. 1.50

2349 - 2352 PB L 73754 — Aliphatic chlorinated hydrocarbons. By Harms. May 24, 1938. In German. 1.50

2353 - 2373 PB L 73754 — Report on studies in the field of phthalocyanines up to the end of April 1938. By Nadler. May 23, 1938. In German. 2.50

2374 - 2378 PB L 73754 — Sulfonamides. By Tietze. May 11, 1938. In German. 1.50

2379 - 2392 PB L 73754 — Rayon dyes soluble in water. By Kleiner. May 10, 1938. In German. 1.50

2393 - 2420 PB L 73754 — Sulfones and sulfonamides. By Hulsmann. May 6, 1938. In German. 3.00

2421 - 2425 PB L 73754 — Testing pyrrolidine, trimethylenimine and piperidine and pyrrolidine. Preparations. By Knöpfle. Apr 25, 1938. In German. 1.50

2426 - 2433 PB L 73754 — Nitration of aliphatic hydrocarbons. By Schwarz. In German. 1.50

2434 - 2440 PB L 73754 — Diene syntheses. By Rickert. Apr 20, 1938. In German. 1.50

2441 - 2445 PB L 73754 — Preparation of some heterocyclic nitrogen compounds. By Möller. Apr 12, 1938. In German. 1.50

2446 - 2450 PB L 73754 — Sulfonamides. By Tietze. Apr 7, 1938. In German. 1.50

2451 - 2455 PB L 73754 — Preparation of esters of methylene salicylic acid and methylene disalicylic acid. By Bunge. Apr 4, 1938. In German. 1.50

2456 - 2464 PB L 73754 — Manufacture of washing and wetting agents. By Ballauf. Apr 4, 1938. In German. 1.50

2465 - 2473 PB L 73754 — Naphthol AS-dyeing. By Ballauf. Apr 2, 1938. In German. 1.50

2474 - 2480 PB L 73754 — Azo dyes, dyeing auxiliaries. By Petersen. Mar 28, 1938. In German. 1.50

2481 - 2483 PB L 73754 — Butadiene polymerization. By R. Meyer. Mar 15, 1938. In German. 1.50

2484 - 2502 PB L 73754 — Azo dyes, intermediates, dyeing auxiliaries. By Horn. Mar 15, 1938. In German. 2.00

2503 - 2509 PB L 73754 — The emulsion polymerization of butadiene. By R. Meyer. Mar 15, 1938. In German. 1.50

2510 - 2511 PB L 73754 — Ozone decomposition of emulsion polymers of butadiene. By R. Meyer. Mar 15, 1938. In German. 1.50

2512 - 2514 PB L 73754 — Butadiene polymerization, highly chlorinated propanes. By R. Meyer. Mar 15, 1938. In German. 1.50

2515 - 2518 PB L 73754 — Ozone decomposition of Buna S. By R. Meyer. Mar 15, 1938. In German. 1.50

2519 - 2527 PB L 73754 — Report on experiments concerning chemical fermentation. By Lang. Mar 8, 1938. In German. 1.50

2528 - 2533 PB L 73754 — Phenol ether, sulfonamides. By Tietze. Mar 5, 1938. In German. 1.50

2534 - 2538 PB L 73754 — Aldehyde resins, moth preventives. By Tietze. Feb 8, 1938. In German. 1.50

2539 - 2543 PB L 73754 — Condensation products from cyanuric chloride and amines. By Tietze. Jan 10, 1938. In German. 1.50

2544 - 2554 PB L 73754 — Nitration of aliphatic gaseous hydrocarbons with nitric acid. By Schwarz. Feb 22, 1938. In German. 1.50

2555 - 2565 PB L 73754 — Investigation of the "Benso Fast Copper" series. By Stein. Feb 16, 1938. In German. 1.50

2566 - 2574 PB L 73754 — Synthetic resins. By Kurtz. Jan 28, 1938. In German. 1.50

2575 - 2577 PB L 73754 Chlorination of butadiene polymers in chloroform solution under pressure. By Blomer. Jan 28, 1938. In German. 1.50

2578 - 2579 PB L 73754 Chlorination of buna. By Blomer. Jan 25, 1938. In German. 1.50

2580 - 2590 PB L 73754 Synthetic resins, softening agents, rubber auxiliaries. By Knopfle. Jan 25, 1938. In German. 1.50

2591 - 2611 PB L 73754 Phthalocyanines. By Nadler. Jan 24, 1938. In German. 2.50

2612 - 2626 PB L 73754 "Ranidogen" dyes. By Muth. Jan 21, 1938. In German. 1.50

2627 - 2631 PB L 73754 Hydrophobing agents. By Doser. Jan 19, 1938. In German. 1.50

2632 - 2636 PB L 73754 Cotton dyes of the "Benzo Fast Copper" series wool dyes from diazotized 5-amino-2-hydroxybenzoic acid or 5-amino-2-dimethylaminobenzoic acid. By Stuesser. Jan 14, 1938. In German. 1.50

2637 - 2645 PB L 73754 Azo dyes and dye intermediates. By Ballauf I. Jan 12, 1938. In German. 1.50

2646 - 2649 PB L 73754 Emulsion polymerization of butadiene. By Meyer I. Jan 11, 1938. In German. 1.50

2650 - 2656 PB L 73754 Preparation and examination of several acetate-rayon dyes from diazotized aminothiodiazols. By Schweitzer. Jan 5, 1938. In German. 1.50

2657 - 2672 PB L 73754 Phenyloxanthraquinonebenzacridone dyes. By Hoyer. Jan 3, 1938. In German. 2.00

2673 - 2677 PB L 73754 Preparing and testing diaminodiphenoxyacetic acid and several azo dyes of the "Sirius" and "Benzo Fast Copper" series, and "Cellitazol." By Taube. Dec 22, 1937. In German. 1.50

2678 - 2684 PB L 73754 Preparation and examination of "Benzo Fast Copper" dyes. By Stein. Dec 20, 1937. In German. 1.50

2685 - 2693 PB L 73754 Wet processing of red "Sirius"- and "Sirius Supra" dyes, the preparation of several cotton dyes and "Solidogens." By Petersen. Dec 15, 1937. In German. 1.50

2694 - 2699 PB L 73754 Condensation of aminophenols with acid chlorides by using phenol as solvent. By Tietze. Dec 9, 1937. In German. 1.50

2700 - 2701 PB L 73754 Chlorination of buna. By Blomer. Dec 16, 1937. In German. 1.50

2702 - 2715 PB L 73754 Urea chlorides of aliphatic diamines. By Haller. Dec 4, 1937. In German. 1.50

2716 - 2721 PB L 73754 Preparation of several aniline derivatives and emulsifiers. By Ballauf. Dec 1, 1937. In German. 1.50

2722 - 2724 PB L 73754 Synthetic resins from 1,2-dichloroether and phenols or amines. By Spielberger. Nov 19, 1937. In German. 1.50

2725 - 2727 PB L 73754 Chlorination of a butadiene copolymer. By Blomer. Dec 4, 1937. In German. 1.50

2728 - 2741 PB L 73754 Textile auxiliaries. By Keppler. Dec 3, 1937. In German. 1.50

2742 - 2751 PB L 73754 Preparation of nitroisobutylglycerol, azo dyes, soluble in water, and examination of several "Cellitol fast dyes and" several intermediates such as hydroxyethylbenzyl-aniline. By Kleiner. Dec 3, 1937. In German. 1.50

2752 - 2756 PB L 73754 Laboratory washing machine for experiments with small quantities of substances. By Keppler. Dec 2, 1937. In German. 1.50

2757 - 2761 PB L 73754 Diene syntheses with alkylidene and benzylidene malonic ester. By Rickert. Dec 1, 1937. In German. 1.50

2762 - 2764 PB L 73754 Synthetic resins. By Spielberger. Nov 25, 1937. In German. 1.50

2765 - 2778 PB L 73754 Rubber auxiliaries, softening agents etc. By Bögemann. Nov 26, 1937. In German. 1.50

2779 - 2791 PB L 73754 inter Manufacture of "Benzo Fast Copper" dyes, and preparation of some intermediates, e.g. o-aminoarylhydroxyacetic acids. By Delfs. Nov 25, 1937. In German. 1.50

2792 - 2799 PB L 73754 Manufacture of Variamin Blue B azo salts from 4-amino-4-methoxydiphenylamine. By Havekoss. Nov 22, 1937. In German. 1.50

2800 - 2809 PB L 73754 Dyes for cotton, wool and acetate rayon. By Stüsser. Nov 15, 1937. In German. 1.50

2810 - 2813 PB L 73754 Hydrophobing with zirconium compounds. By Doser. Nov 10, 1937. In German. 1.50

2814 - 2817 PB L 73754 Hydroxyaminoamides. By Tietze. Nov 9, 1937. In German. 1.50

2818 - 2823 PB L 73754 Anthrimides of the anthraquinone-acridone series as vat dyes. By Kramer. Nov 5, 1937. In German. 1.50

2824 - 2828 PB L 73754 Dyes and intermediates. By Havekoss. Oct 26, 1937. In German. 1.50

2829 - 2835 PB L 73754 Organic fluorine compounds. "Benzoulans." By Eberseberger. Oct 25, 1937. In German. 1.50

2836 - 2838 PB L 73754 Experiments for the addition of compounds of the RNHA type on butadiene in 1,4 position. By Meyer. Oct 23, 1937. In German. 1.50

2839 - 2846 2852 - 2856 PB L 73754 Researches in various fields of organic chemistry. By Dohmair. Oct 16, 1937. In German. 1.50

2847 - 2851 PB L 73754 Amino amides. By Tietze. Oct 18, 1937. In German. 1.50

2852 - 2856 PB L 73754 See frames 2839 - 2846.

2857 - 2858 PB L 73754 Addition of autoxidizable substances in the emulsion

polymerization. By Meyer. Oct 12, 1937 In German. 1.50

2859 - 2891 PB L 73754 Diene synthesis and thermal polarization. By Rickert. Oct 1, 1937. In German. 3.50

2892 PB L 73754 Chlorination of buna. By Hlömer. Aug 1937. In German. 1.50

2893 - 2897 PB L 73754 Experiments on the plastic "Perduren" and on the chlorination of latex. By Spielberger. Oct 11, 1937. In German. 1.50

2898 - 2901 PB L 73754 Experiments on "Perduren." By Spielberger. Oct 11, 1937. In German. 1.50

2902 - 2906 PB L 73754 Experiments on the action of double bonds on the emulsion polymerization. By R. Meyer. Oct 11, 1937. In German. 1.50

2907 - 2920 PB L 73754 The "azo ester reactions" of natural and synthetic rubber. By R. Meyer. Oct 8, 1937. In German. 1.50

2921 - 2934 PB L 73754 Siccatives and rubber auxiliaries. By Knopfle. Oct 5, 1937. In German. 1.50

2935 - 2944 PB L 73754 Azo dyes and intermediates. By Ballauf I. Oct 4, 1937. In GermaH. 1.50

2945 - 2963 PB L 73754 Tests for the production of "lamepon" like substances. By Keppler. Sep 29, 1937. In German. 2.00

2964 - 2970 PB L 73754 Preparation of "Rapidogen Black 1264." By Muth. Sep 29, 1937. In German. 1.50

2971 - 2978 PB L 73754 Dye-intermediates and "Solidogens." By Petersen. Sep 14, 1937. In German. 1.50

2979 - 2984 PB L 73754 Dyes, dye intermediates and and dyeing auxiliaries. By Taube. Sep 8, 1937. In German. 1.50

2985 - 2988 PB L 73754 Hydrophobing with chromium and zirconium compounds. By Doser. Sep 6, 1937. In German. 1.50

2989 - 2992 PB L 73754 Dye intermediates. By Tietze. Aug 31, 1937. In German. 1.50

2993 - 2996 PB L 73754 Vinyl compounds. By Kurtz. Aug 30, 1937 . In German. 1.50

2997 - 3002 PB L 73754 Washing and wetting agents. By Ballauf II. Aug 20, 1937. In German. 1.50

3003 - 3014 PB L 73754 Experiments in the field of "Indigosols," acridone dyes and phthalocyanines. By Hoyer. Aug 11, 1937. In German. 1.50

PB L 73754-S. I.G. FARBENINDUSTRIE A.G., LEVERKUSEN, GERMANY. Various investigations on dyes. (FIAT Microfilm Reel L 85, Frames 2080-3014, abstract cards). 1936 - 1938. 157 p. Price: Microfilm-$4.00 - Photostat-$11.00.
Brief abstracts of the individual items on the above reel L 85, PB 73754, prepared by FIAT personnel in Germany.

PB L 73351. I.G. FARBENINDUSTRIE A. G. LUDWIGSHAFEN, GERMANY. Instructions for the production of organic compounds. (FIAT Microfilm Reel M 107, Frames 1510-1535.) 1945. 26 f. Price: Microfilm-$1.25 - Enlargement Print-$3.00
This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as microfilm for $1.25. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1510-1512 PB L 73351	Production of the Ca-salt of 4-toluidine-3-sulfonic acid. By Heinse. Sep 3, 1945. In German.	$1.50
1513 - 1515 PB L 73351	Production of nitrile-tri-acetonitrile (Trilon-nitrile A). By Heinse. Sep 4, 1945. In German.	1.50
1516 - 1518 PB L 73351	Production of ethylene diamino-tetra-acetonitrile (Trilon-Nitril B). By Heinse. Sep 4, 1945. In German.	1.50
1519 - 1526 PB L 73351	Tests and investigations of the manufacturing instructions for betanaphthol. By Schweizer. Jul 26, 1945. In German.	1.50
1527 PB L 73351	Production of ground betanaphthol. By Schweizer. Nov 7, 1945. In German.	1.50
1528 - 1529 PB L 73351	Production of B-naphthalene-sulfonic acid. By Schweizer. Aug 3, 1945. In German.	1.50
1530 PB L 73351	Production of dry sodium beta-naphthalene sulfonate. By Schweizer. Jul 31, 1945. In German.	1.50
1531 - 1532 PB L 73351	Production of distilled dihydroxy-thylaniline. By Schweizer. Oct 3, 1945. In German.	1.50
1533 - 1535 PB L 73351	Production of mono-N-hydroxyethyl aniline. By Schweizer. Oct 4, 1945. In German.	1.50

PB L 73351-S. I.G. FARBENINDUSTRIE A.G. LUDWIGSHAFEN, GERMANY. Instructions for the production of organic compounds. (FIAT Microfilm Reel M 107, Frames 1510-1535, abstract cards). 1945. 12 p. Price: Microfilm-$1.00 - Photostat-$1.00
Brief abstracts of the individual items on the above reel M 107, PB 73351, prepared by FIAT personnel in Germany.

PB L 74718. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Miscellaneous reports on chemical research, investigations and production. (FIAT Microfilm Reel M 92, Frames 2428-3230) 1932-1945. 803 f. Price: Microfilm-$6.00 - Enlargement print-$80.50
This microfilm contains miscellaneous reports on: (1) Investigations on the chemical-physical properties and structure of materials, e. g. methylene chloride, ammonia mixtures, steam and vapor pressure, critical pressure, thermodynamic data, heat conduction of cables, explosion limits of liquids, non-destructive testing of materials, chemical scales, etc. (2) Production and production methods, e. g. separation of azeotropic two-component mixtures, butadiene-butylene separation, synthetic fibers and cellulose, nitration of hydrocarbons, utilisation of light ashes as building material, etc. (3) Calculation, development, and practical application of general chemical machinery and apparatus, e. g. heat exchangers, drying and condensing apparatus, vibrating machines and mills, porcelain pumps, conveyors for liquids, furnaces for catalytic reactions, tanks and containers, high-pressure tubes, evaporators, boilers, hydroge-

nation furnaces, columns, tubing systems in chemical plants, cutting torches for tubes, etc. Furthermore, the reel contains an index of 132 laboratory and works reports of the Inorganic Laboratory of Ludwigshafen (1935-1945). 35 individual items are listed below and will be available as enlargement prints only. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
2428-2455 PB L 74718	A rotating viscometer for investigating the structure of viscous materials. By F. Patat and G. Seydel. 1941. In German.	$3.00
2456-2467 PB L 74718	Combustibility of methylene chloride. By Hanck. 1940. In German.	1.50
2468-2478 PB L 74718	Combustibility of methylene chloride. By Hanck. 1941. In German. Supplement to previous report.	1.50
2479-2553 PB L 74718	Structural and strength calculations of heat exchangers. By Hans Honold. 1941. In German.	7.50
2554-2562 PB L 74718	Drying of Lentil suspensions. Report on the 5th meeting of the "K" Committee at Ludwigshafen on January 30, 1941. 1941. In German.	1.50
2563-2567 PB L 74718	Research on methanol-stabilized, pure methylene chloride produced by the I. G. Wolfen-Filmfabrik. By Rothweiler. 1941. In German.	1.50
2568-2674 PB L 74718	Report dealing with combustion and distillation of methylene chloride. 1926. In German.	1.50
2575-2588 PB L 74718	Boiling and condensation curves for ammonia-water mixtures at high pressures (100, 150, 180 atmospheres). By Mats. 1940. In German.	1.50
2589-2604 (3 additional frames) PB L 74718	Additional information on the evaluation of physical properties of substances: Saturation pressure; critical values (temperature, pressure, density); vapor density; liquid density; heat of vaporization; specific heat; viscosity; surface tension; and properties of two-component mixtures. By Mahl. n. d. In German.	2.00
2605-2617 PB L 74718	Notice in dry-milling. By D. Bachmann. 1940. In German.	1.50
2618-2626 PB L 74718	Research on wet-milling. By D. Bachmann. 1940. In German.	1.50
2627-2645 PB L 74718	Report on milling research with cement clinkers in a 42 l. tube mill. By Peters. 1940. In German.	2.00
2646-2655 PB L 74718	Krupp-mill ("Scheibenschwingmühle"). n. d. In German.	1.50
2656-2687 PB L 74718	Extending the azeotropic method with extracting liquids. By Werner Mats. 1941. In German.	3.50
2688-2713 PB L 74718	Research on and plant experience with condensers. 1942. In German.	3.00
2714-2740 PB L 74718	Porcelain rings. Memorandum of July 30, 1942 entitled "The development of a sturdy porcelain ring." 1942. In German.	3.00
2741-2748 PB L 74718	Charging of horizontal, rotating cylinders with liquids. 1942. In German.	1.50
2749-2760 PB L 74718	Calculation of the vapor composition from the composition of the fluid in binary mixtures with maximum and minimum vapor pressure. 1943. In German.	1.50
2761-2790 PB L 74718	Calculation and evaluation of ovens for catalytic exothermal and endothermal reactions which proceed within narrow temperature limits. 1942. In German.	3.00
2791-2873 PB L 74718	Report on the sixth "thermal" meeting held at Oppau on May 18-19, 1942 (various reports). In German.	8.50
2874-2901 PB L 74718	Determination of the effective duration of the individual components of the throughputs in the butyne hydrogenation furnace. By Schoe. 1944. In German. Text largely illegible.	3.00
2902-2914 PB L 74718	Butadiene-butylene separation: Comparison of the Leverkusen butadiene sulfone method with azeotropic distillation. By Dorrer. 1944. In German.	1.50
2915-2928 PB L 74718	The effect of thorough mixing on the reaction product in continuous timed-reaction processes. By Jonas. 1944. In German.	1.50
2929-2937 PB L 74718	Construction and performance of a Ramac-Kittel-"Norden" column, 1200 mm. diameter partly packed with Raschig rings. 1944. In German.	1.50
2938-2970 PB L 74718	Piping diagram of the plant. 1936. In German.	3.50
2971-2983 PB L 74718	Report on a burning apparatus for cutting tubes. 1936. In German.	1.50
2984-2997 PB L 74718	Two new non-destructive methods for testing of materials. By Funk. 1938. In German.	1.50
2998-3021 PB L 74718	Cellulose-"Cellulose wool" multivectorial "Schwingungstechnische" methods. Several reports by H. Messer, H. Haymann, and H. Kurz. n. d. In German.	2.50
3022-3069 PB L 74718	The sedimani-torsion scale, a new recording apparatus for analysing fineness. By D. Bachmann. n. d. In German.	5.00
3070-3089 PB L 74718	A list of the reports of the Inorganic Laboratory of Ludwigshafen, starting with No. 267, together with a brief abstract. 1935-1945. In German.	2.00
3090a-3096 PB L 74718	Report No. 251. Catalytic preparation of oleyl alcohol from oleic acid. By Kib. 1932. In German.	1.50
3097-3130 PB L 74718	Report No. 252. Processing a waste liquor containing aluminum chloride for water purification purposes. Part 1. Recovery of liquors containing 10% Al_2O_3. By E. Bittgenbach. 1932. In German.	3.50
3131-3180 (2 extra frames)	Report No. 253. Production of chrome alum from potassium bichromate by reduction with sulfurous	

PB L 74718 acid from the waste gas of sulfuric acid production. By Zimmermann. 1932. In German. 5.00

3161 PB L 74718 This frame is unnumbered.

3162-3230 PB L 74718 Report No. 253. Same title as previous report (No. 253). Second report. by Zimmerman. Continuation of reports from the "Säure-Abt," No. 243. 1932. In German. 5.00

PB L 73846. I.G. FARBENINDUSTRIE A.G., LUDWIGSHAFEN, GERMANY. Various reports dealing with chemicals and related subjects. (FIAT Microfilm Reel M93, Frames 3231-4016). 1932 - 1936. 785 f. Price: Microfilm-$6.00 - Enlargement Prints-$78.50.
This reel was prepared by FIAT investigators in Germany. 46 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
3231 - 3264 PB L 73846	Possibilities of using waste gases evolved in the production of aluminum chloride from alumina. By Gruber and Zimmermann. Nov 2, 1932. In German.	$3.50
3265 - 3295 PB L 73846	Production of a liquor containing aluminum chloride to be used for the purification of water. By Büttgenbach. Nov 15, 1932. In German.	3.50
3296 - 3325 PB L 73846	Production of pure cadmium metal. By Spoun. Dec 21, 1932. In German.	3.00
3326 - 3350 PB L 73846	Production of chromium from chromic chloride. In German.	2.50
3351 - 3370 PB L 73846	Rock salt solution for the chlorine factory. Feb 10, 1933. In German.	2.00
3371 - 3411 PB L 73846	Laboratory projects on sulfur dioxide, chlorine utilization, and carbon black. By Johannsen. Apr 20, 1933. In German.	4.50
3412 - 3460 PB L 73846	Sulfuryl chloride as acid medium for preserving forage crops. By Spoun. Apr 25, 1933. In German.	5.00
3461 - 3522 PB L 73846	Utilization of waste gases containing hydrogen. By Zimmermann, Jun 20, 1933. In German.	6.50
3523 - 3533 PB L 73846	Extraction of zinc- ammonium chloride slags by steam. By Spoun. Aug 15, 1933. In German.	1.50
3534 - 3549 PB L 73846	Production of cadmium metal by cementation with electrolytic zinc. By Spoun. Jul 25, 1933. In German.	2.00
3550 - 3559 PB L 73846	Production of cuprous chloride from copper residues. By Dose. Oct 6, 1933. In German.	1.50
3560 - 3587 PB L 73846	Chlorination of zinc "ammonium chloride slags" in aqueous suspension. By Spoun. Nov 15, 1933. In German.	3.00
3588 - 3607 PB L 73846	Electrochemical preparation of hydrosulfite solutions. By Büttgenbach. Dec 11, 1933. In German.	2.00
3608 - 3620 PB L 73846	Production of esters of arsenious acids. By Spoun. Dec 20, 1933. In German.	1.50
3621- 3627 PB L 73846	Production of arsenic trichlorides. By Kalberer. Feb 1, 1934. In German.	1.50
3628 - 3636 PB L 73846 a	Temperatures and pressures when exploding acetylene and gas mixtures containing acetylene. By Spoun. Feb 1, 1934. In German.	1.50
3637 - 3649 PB L 73846	Copper corrosion during the evaporation of sodium hydroxide solutions. By Büttgenbach. Mar 1, 1934. In German.	1.50
3650 - 3654 PB L 73846	Electrolytic oxidation of small quantities of sulfur dioxide in sulfuric acid. By Buttgenbach. Jun 1, 1934. In German.	1.50
3655 - 3681 PB L 73846	Catalytic action of vaporous substances during oxidations in the vapor or gas phase. By Zimmermann. Jul 3, 1934. In German.	3.00
3682 - 3694 PB L 73846	Improvement of the alanine preparation. By Flick and Büttgenbach. Jun 6, 1934. In German.	1.50
3695 - 3706 PB L 73846	Sulfuryl chloride as acid carrier for iron pickling solutions. By Spoun. Jun 12, 1934. In German.	1.50
3707 - 3715 PB L 73886	Preparation of highly concentrated zinc chloride solutions. By Spoun. Jun 19, 1934. In German.	1.50
3716 - 3724 PB L 73846	Sulfur monoxide. By Büttgenbach. Jun 20, 1934. In German.	1.50
3725 - 3735 PB L 73846	Preparation and properties of sulfur monoxide. By P.W. Schenk. 1933. In German.	1.50
3736 - 3747 PB L 73846	Production of aluminum chloride. By Gruber. Aug 31, 1934. In German.	1.50
3748 - 3753 PB L 73846	Evaporation of arsenic acid in the vacuum agitation pan. By Spoun. Sep 3, 1934. In German.	1.50
3754 - 3761 PB L 73846	Determination of carbon dioxide in addition to sulfur dioxide. Nov 10, 1934. In German.	1.50
3762 - 3769 PB L 73846	Chlorination of ammonium chloride slags. By Lange. Nov 27, 1934. In German.	1.50
3770 - 3798 PB L 73846	Sulfur dioxide production by pressure absorption. By Zimmermann. Dec 3, 1934. In German.	3.00
3799 - 3812 PB L 73846	Demand and production of sulfur in Germany. By Warster. Dec 17, 1934. In German.	1.50
3813 - 3821 PB L 73846	Electrolytic diaphragms. By Büttgenbach. Dec 18, 1934. In German.	1.50

751194 O—48——4—36

Miscellaneous Chemicals (contd)

3822 - 3850 PB L 73846 Domestic carbon black as substitute for American gas carbon blacks. By Schmalz. Dec 14, 1934. In German. 3.00

3851 - 3865 PB L 73846 Processing of aluminum chloride solution containing iron to aluminum sulfate. By Patsch. Mar 15, 1935. In German. 1.50

3866 - 3871 PB L 73846 Preparation of chrome alum from chromium scraps. By Patsch. Apr 15, 1935. In German. 1.50

3872 - 3880 PB L 73846 Iron tanning. By Huhn. Jun 3, 1935. In German. 1.50

3881 - 3900 PB L 73846 Iron removal from bauxite. By Patsch. Nov 28, 1935. In German. 2.00

3901 - 3907 PB L 73846 Reduction of magnesium sulfate, calcium sulfate and zinc sulfate. By Winterberger. Mar 19, 1936. In German. 1.50

3908 - 3920 PB L 73846 Manufacture of "Mipor" asbestos diaphragms. By Büttgenbach. Mar 31, 1936. In German. 1.50

3921 - 3937 PB L 73846 Preparation of hydrosulfite in an electrosynthetic and a purely chemical way. By Büttgenbach. Apr 1, 1936. In German. 1.50

3938 - 3956 PB L 73846 Preparation of hydrogen sulfide from the elements. By Patsch. Mar 31, 1936. In German. 2.00

3957 - 3969 PB L 73846 Preparation of thionyl bromide. By Lühdemann. Apr 2, 1936. In German. 1.50

3970 - 3976 PB L 73846 Iron tanning. By Dohse. Apr 6, 1936. In German. 1.50

3977 - 3988 PB L 73846 Adhesive power of bitumen on road building stone. By Spoun. Apr 6, 1936. In German. 1.50

3989 - 4000 PB L 73846 Production of carbon black. By Spoun. Apr 6, 1936. In German. 1.50

4001 - 4005 PB L 73846 Melting sulfur from rocks. By Spoun. Apr 9, 1936. In German. 1.50

4006 - 4016 PB L 73846 Production of zinc dust in the generator. By Lühdemann. Apr 15, 1936. In German. 1.50

PB L 73846-S. I.G. FARBENINDUSTRIE A.G., LUDWIGSHAFEN, GERMANY. Various reports dealing with chemicals and related subjects. (FIAT Microfilm Reel M93, Frames 3231-4016. 1932 - 1936. 65 p. Price: Microfilm-$2.00 - Photostat-$5.00.
Brief abstracts of the individual items on the above reel M93, PB 73846, prepared by FIAT personnel in Germany.

PB L 73552. I.G. FARBENINDUSTRIE A.G., LUDWIGSHAFEN, GERMANY. Various reports in chemicals. (FIAT Microfilm Reel M 95, Frames 4843-5617). 1938 - 1940. 774 f. Price: Microfilm-$6.00 - Enlargement Print-$77.50
This reel was prepared by FIAT investigators in Germany. 54 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
4843 - 4847 PB L 73552	Tests on the utilization of arsenic sulfide. By W. Adam. Apr 22, 1938. In German.	$1.50
4848 - 4867 PB L 73552	Tests and results on the design of vertical mercury cells at Ludwigshafen. Apr 27, 1938. In German.	2.00
4868 - 4878 PB L 73552	Recent tests for the preparation of chlorine from hydrogen chloride and oxygen. By Mann. Apr 29, 1938. In German.	1.50
4879 - 4887 PB L 73552	Production of sulfur from gypsum. By Adam. Apr 30, 1938. In German.	1.50
4888 - 4895 PB L 73552	Tests for the preparation of a reversible overheat color indicator. By Bauermeister. May 16, 1938. In German.	1.50
4896 - 4910 PB L 73552	Use of coarse grained rock-salt for alkali-chloride electrolysis. By E. Büttgenbach. Jun 8, 1938. In German.	1.50
4911 - 4923 PB L 73552	Sodium sulfide amalgam process. By Winterberger. Jun 7, 1938. In German.	1.50
4925 - 4932 PB L 73552	Preparation of sulfur from gypsum. By Weber. Jun 11, 1938. In German.	1.50
4933 - 4947 PB L 73552	Utilization of soda-slag. By Bauermeister. Jun 22, 1938. In German.	1.50
4948 - 4957 PB L 73552	Production of common salt from sea water. By W. Mann. Jul 5, 1938. In German.	1.50
4958 - 4967 PB L 73552	Transposition in the precipitation process of rock salt purification. By Büttgenbach. Jul 14, 1938. In German.	1.50
4968 - 4973 PB L 73552	Cost comparison between a Bitterfeld process and a Ludwigshafen process in the production of beryllium metal. By Büttgenbach. Jul 14, 1938. In German.	1.50
4974 - 5002 PB L 73552	Electrolysis of aqueous aluminum chloride solutions. By W. Haufe. Aug 2, 1938. In German.	3.00
5003 - 5014 PB L 73552	Preparation of concentrated hydrogen chloride gas in the quartz tube furnace. By W. Just. Jul 22, 1938. In German.	1.50
5015 - 5033 PB L 73552	Production of concentrated sulfur dioxide from roasting gas. By Bauermeister and Haufe. Aug 24, 1938. In German.	2.00
5034 - 5057 PB L 73552	Disposal of flue gases and waste liquids at the aluminum chloride factory in Ludwigshafen. By Paetsch. Aug 29, 1938. In German.	2.50
5058 - 5065 PB L 73552	Removal of small quantities of hydrogen from the chloride cell flue gas. By Paetsch. Sep 30, 1938. In German.	1.50
5066 - 5086 PB L 73552	Tests for the production of copper, lead and zinc from pyrite before	

roasting. By Wimmer. Nov 1, 1938. In German. 2.50

5087 - 5099 PB L 73552 — Removal of hydrogen from chlorine. By Mann. Aug 18, 1938. In German. 1.50

5100 - 5115 PB L 73552 — Investigations on the pit brine of the Gewerkschaft Auguste Victoria, Huls. By Büttgenbach. Nov 8, 1938. In German. 2.00

5116 - 5126 PB L 73552 — Mechanization of the sulfur addition for the technical execution of the reaction $S + 2\ SO_3 = 3\ SO_2$. By Zimmermann. Nov 12, 1938. In German. 1.50

5127 - 5133 PB L 73552 — Tests for the treatment of washer mud. By Spormann. Nov 9, 1938. In German. 1.50

5134 - 5146 PB L 73552 — Preparation of aluminum chloride waste liquors. By Dana. Dec 2, 1938. In German. 1.50

5147 - 5151 PB L 73552 — The preparation of calcium nitrite, barium nitrite, and zinc nitrite. By J. Weber. Dec 16, 1938. In German. 1.50

5152 - 5164 PB L 73552 — Tests for the production of elementary sulfur from pyrite by direct resistance heating. By W. Müller. Dec 16, 1938. In German. 1.50

5165 - 5170 PB L 73552 — Preparation of nitrosylchloride from nitric oxide and chlorine. By W. Traud. Dec 22, 1938. In German. 1.50

5171 - 5182 PB L 73552 — Tests for the continuous preparation of sodium hyposulfite from sodium amalgam and sulfurous acid in the presence of zinc. By W. Cuntze. Jan 17, 1939. In German. 1.50

5183 - 5188 PB L 73552 — Tests for the preparation of sulfur from pyrite by roasting with steam. By W. Müller. Jan 27, 1939. In German. 1.50

5189 - 5211 PB L 73552 — The present state of tests in the field of mineral tanning. By W. Huehn. Feb 24, 1939. In German. 2.50

5212 - 5231 PB L 73552 — Semi-technical tests for the preparation of elementary sulfur from pyrite by direct resistance heating. By Blaser and Friedmann. Apr 21, 1939. In German. 2.00

5232 - 5240 PB L 73552 — Electrolytic preparation of zinc dust for hydrogenations and organic reductions. By W. Eckardt. Apr 27, 1939. In German. 1.50

5241 - 5267 PB L 73552 — Electrolytic removal of iron from aluminum salt solutions on mercury cathodes. By Morgenstern. Jun 13, 1939. In German. 3.00

5268 - 5292 PB L 73552 — Semi-technical tests for the production of elementary sulfur from pyrite by direct resistance heating. By Buckmiller. Jun 14, 1939. In German. 2.50

5293 - 5306 PB L 73552 — Absorption of sulfur dioxide from roasting gases with zinc oxide and water. By Kaelberer. Jul 6, 1939. In German. 1.50

5307 - 5320 PB L 73552 — Vacuum degasing of waste acid in the sulfur dioxide factory. By Luehdemann. Jun 26, 1939. In German. 1.50

5321 - 5341 PB L 73552 — The ammonium bisulfite process for the production of sulfur dioxide and its effects on the plants at Ludwigshafen and Oppau. By v.Nagel. Jul 10, 1939. In German. 2.50

5342 - 5356 PB L 73552 — A lead furnace for the production of hydrogen chloride gas. By Büttgenbach. Jul 21, 1939. In German. 1.50

5357 - 5363 PB L 73552 — Production of soda from sodium sulfate. By Leber. Aug 5, 1939. In German. 1.50

5364 - 5376 PB L 73552 — Tests for preparing saccharin by catalytic oxidation of o-toluene sulfamide. By Leber. Aug 29, 1939. In German. 1.50

5377 - 5386 PB L 73552 — Preparation of chromium solution for tanning. By Kalberer and Zimmermann. Sep 1, 1939. In German. 1.50

5387 - 5397 PB L 73552 — Identical with frames 5377 - 5386. In German. 1.50

5398 - 5415 PB L 73552 — Preparation of chromic oxide soluble in formic acid by precipitating chrome alum solutions. By Kälberer and Zimmermann. Sep 3, 1939. In German. 2.00

5416 - 5436 PB L 73552 — Production of sulfur from gypsum. By Weber. Oct 10, 1939. In German. 2.50

5437 - 5473 PB L 73552 — Investigations on the existence and stability of sulfur dichloride. By Schulze. Oct 11, 1939. In German. 4.00

5474 - 5495 PB L 73552 — Tests for processing de-arsenized washer-mud (lead mud). By Dana. Sep 15, 1939. In German. 2.50

5496 - 5512 PB L 73552 — Compilation of known processes and tests for the production of sulfur dioxide from roasting gases. By Kälberer and Zimmermann. Jan 2, 1940. In German. 2.00

5513 - 5527 PB L 73552 — Tests on the electrolytic regeneration of alkali-sulfate-chromium sulfate-solutions. By Kälberer and Zimmermann. Jan 30, 1940. In German. 1.50

5528 - 5543 PB L 73552 — Tests for the preparation of anhydrous sodium sulfite. By Traud. Apr 8, 1940. In German. 2.00

5544 - 5570 PB L 73552 — Separation of arsenic from materials containing arsenic or residues by sublimation. By Kälberer. Apr 25, 1940. In German. 3.00

5571 - 5576 PB L 73552 — The acid sodium pyrophosphate ($Na_2H_2P_2O_7$). By Friedrich and v.Susich. Jan 31, 1940. In German. 1.50

5577 - 5587 PB L 73552 — The activation energy during the SO_3 catalysis. By Wimmer. Jun 28, 1940. In German. 1.50

5588 - 5595 PB L 73552 — Production of sulfur from pyrite. By Scharfenberg. Sep 23, 1940. In German. 1.50

5596 - 5608 PB L 73552 — Production of sulfur from sulfur dioxide by means of hydrogen.

By Scharfenberg. Sep 27, 1940. In German. 1.50

5609 - 5617 PB L 73552 Production of non-ferrous alumina by pressure hydrolysis of basic aluminum salts. By Morgenstern. Nov 21, 1940. In German. 1.50

PB L 73552-S. I.G. FARBENINDUSTRIE A.G. LUDWIGSHAFEN GERMANY. Various reports in chemicals. (FIAT Microfilm Reel M 95, Frames 4843-5617, abstract cards.) 1938-1940. 61 p Price: Microfilm-$2.00 - Photostat-$5.00.
Brief abstracts of the individual items on the above reel M 95, PB 73552, prepared by FIAT personnel in Germany.

PB L 73587. RUHRCHEMIE A.G., OBERHAUSEN/HOLTEN, GERMANY. Reports relating to fuels, chemical engineering and organic preparations. (FIAT Microfilm Reel K 30, Frames 7371-8202). 1938 - 1946. 831 f. Price: Microfilm-$6.00 - Enlargement Print-$83.50.
This reel was prepared by FIAT investigators in Germany. 160 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
7371 - 7373 PB L 73587	Treatment of gasoline with Fuller's earth. Oct 12, 1938. In German.	$1.50
7374 - 7377 PB L 73587	Boiling analyses of different cracked products. Oct 7, 1938. In German.	1.50
7378 - 7396 PB L 73587	Examining products of a cracking plant. May 7, 1938. In German.	2.00
7397 - 7398 PB L 73587	Iron catalyst-tests in gasoline production. By Hagemann. Feb 2, 1940. In German.	1.50
7399 - 7401 PB L 73587	Normal pressure synthesis of gasoline with iron-catalysts. By Hagemann. Nov 12, 1945. In German.	1.50
7402 - 7409 PB L 73587	Reduction of water consumption in industrial plants. By Johswich. Mar 23, 1944. In German.	1.50
7410 - 7437 PB L 73587	Improvement in the operation of gasoline synthesis plants. Mar 26, 1943. In German.	3.00
7438 - 7440 PB L 73587	Desulfurization of synthesis gas. Jul 8, 1941. In German.	1.50
7441 - 7443 PB L 73587	Operation of two-stage gasoline synthesis. By Schuff. Jan 15, 1940. In German.	1.50
7444 - 7447 PB L 73587	Dry regeneration of gasoline catalysts. Jul 20, 1939. In German.	1.50
7448 - 7453 PB L 73587	Thorium-magnesium catalysts for gasoline synthesis. By Schuff. n.d. In German.	1.50
7454 - 7467 PB L 73587	Content of cobalt and diatomaceous earth in gasoline synthesis catalyst. By Koelbel. Mar 9, 1938. In German.	1.50
7468 - 7482 PB L 73587	Efficiency and life of the gasoline synthesis catalyst. By Steinbrecher and Weingaertner. Jan 1938. In German.	1.50
7483 - 7516 PB L 73587	Aromatization tests. Feb 8, 1941. In German.	3.50
7517 PB L 73587	Allotment of raw materials for a gasoline and nitrogen plant. By Gottlob. Nov 16, 1940. In German.	1.50
7518 - 7525 PB L 73587	Plant for drying of hydrogen. By Stuhlpfarrer. Jul 19, 1940. In German.	1.50
7526 - 7536 PB L 73587	Flow resistance in the aromatization catalyst. Jul 2, 1940. In German.	1.50
7537 - 7562 PB L 73587	Production of pure C_7 compounds, aromatization and production of pure toluene. Apr 30, 1940. In German.	3.00
7563 - 7566 PB L 73587	Processing of aluminum oxide into aromatization catalysts. By Spiske. Jan 26, 1940. In German.	1.50
7567 PB L 73587	Trial nitration of synthetic toluene. Jan 15, 1940. In German.	1.50
7568 PB L 73587	Toluene testing installation. Aug 31, 1939. In German.	1.50
7569 - 7571 PB L 73587	Production of pure toluene from "active carbon gasoline". By Petri. Jul 14, 1939. In German.	1.50
7572 - 7575 PB L 73587	Production of toluene by aromatization. May 26, 1939. In German.	1.50
7576 - 7581 PB L 73587	Production of aromatic hydrocarbons from acetylene. Oct 21, 1937. In German.	1.50
7582 - 7592 PB L 73587	Calculations of an ethylene plant. Aug 20, 1943. In German.	1.50
7593 - 7595 PB L 73587	Synthesis of light hydrocarbons. Feb 15, 1939. In German.	1.50
7596 - 7599 PB L 73587	Separation of sodium carbonate soaps from soap mixtures containing hydrocarbons. Nov 4, 1942. In German.	1.50
7600 - 7603 PB L 73587	Apparatus for determining the viscosity of liquids. By Heinrich Tramm. Oct 21, 1942. In German.	1.50
7604 - 7605 PB L 73587	Level indication for liquids in containers. Oct 21, 1942. In German.	1.50
7606 - 7609 PB L 73587	Production of unsaturated hydrocarbons by catalytic hydrogenation of carbon monoxide. Sep 26, 1942. In German.	1.50
7610 - 7616 PB L 73587	Process for carrying out exothermic reactions. Sep 21, 1942. In German.	1.50
7617 - 7619 PB L 73587	Process for producing solid hydrocarbons by reacting carbon monoxide with hydrogen at ordinary temperatures. In German. Additional application for a patent J 63879 IVd/120, Feb 20, 1939. Inventors: Kotzschmar and others.	1.50
7620 - 7623 PB L 73587	Production of low-boiling liquid hydrocarbons. In German. Additional application for a patent J 63 778 IVd/120, Feb 11, 1932.	1.50

7624 - 7627 PB L 73587 Production of ammonium nitrate which will not harden during transportation or storage. Sep 14, 1942. In German. 1.50

7628 - 7630 PB L 73587 Adjustment of uniform packing heights in catalytic processes. Aug 31, 1942. In German. 1.50

7631 - 7632 PB L 73587 Preliminary treatment of coal gases which are to be highly compressed. Aug 28, 1942. In German. 1.50

7633 - 7634 PB L 73587 Increasing the yield of oxygen-containing products in the catalytic hydrogenation of carbon monoxide. Aug 25, 1942. In German. 1.50

7635 - 7637 PB L 73587 Stabilization of synthetic lubricating oils. Aug 20, 1942. In German. 1.50

7638 - 7640 PB L 73587 Dehydrogenation of saturated aliphatic hydrocarbons. Aug 20, 1942. In German. 1.50

7641 - 7644 PB L 73587 Reduction of the size of thread like products especially in the production of catalysts. Aug 7, 1942. In German. 1.50

7645 - 7647 PB L 73587 Lubricant containing carboxylic acids or their derivatives. Aug 4, 1942. In German. 1.50

7648 - 7650 PB L 73587 Comparison viscosimeter for the determination of the degree of viscosity or dilution of lubricants. By H. Tramm. Jul 23, 1942. In German. 1.50

7651 - 7652 PB L 73587 Production of ammonium nitrate-mixed fertilizers. Jul 22, 1942. In German. 1.50

7653 - 7655 PB L 73587 Packing of catalysts into catalytic furnaces. Jun 24, 1942. In German. 1.50

7656 - 7662 PB L 73587 Packing of catalysts into catalytic furnaces. Jun 8, 1942. In German. 1.50

7663 - 7667 PB L 73587 The operation of exothermic catalytic furnaces. Jun 6, 1942. In German. 1.50

7668 - 7672 PB L 73587 Catalyst furnace for exothermic gas reactions, especially carbon monoxide hydrogenation. Jun 6, 1942. In German. 1.50

7673 - 7677 PB L 73587 The production of uniformly granulated calcium ammonium nitrate. Jun 5, 1942. In German. 1.50

7678 - 7682 PB L 73587 Uniform heating of coal dust furnaces. May 28, 1942. In German. 1.50

7683 - 7685 PB L 73587 The dehydration of gases. May 26, 1942. In German. 1.50

7686 - 7689 PB L 73587 The separation of branched fatty acids from mixtures of isomeric and homologous fatty acids. May 14, 1942. In German. 1.50

7690 - 7692 PB L 73587 High pressure distillations. May 11, 1942. In German. 1.50

7693 - 7697 PB L 73587 Dehydrogenation of hydrocarbons. May 6, 1942. In German. 1.50

7698 - 7701 PB L 73587 The regulation of temperature in relation to other temperatures. May 6, 1942. In German. 1.50

7702 - 7706 PB L 73587 Process for separating isomeric fatty acid mixtures. May 1, 1942. In German. 1.50

7707 - 7709 PB L 73587 Double walled protective hood for gasoline tanks etc. Mar 11, 1942. In German. 1.50

7710 - 7714 PB L 73587 Cellular encasing of liquid motor fuels. Feb 19, 1942. In German. 1.50

7715 - 7718 PB L 73587 Production of methane from mixtures of oxides of carbon with hydrogen. Feb 2, 1942. In German. 1.50

7719 - 7724 PB L 73587 Conversion of sulfur (bound organically in technical gases, like coke-oven gases) into an easily absorbable form. Feb 2, 1942. In German. 1.50

7725 - 7727 PB L 73587 Conversion of sulfur (bound organically in technical gases, like coke-oven gas) in an easily absorbable form. Feb 2, 1942. In German. 1.50

7728 - 7731 PB L 73587 Production of pure alcohols. Jan 27, 1942. In German. 1.50

7732 - 7735 PB L 73587 Production of ethers used as solvents or softening agents. Jan 26, 1942. In German. 1.50

7736 - 7739 PB L 73587 Dehydrogenation of higher molecular hydrocarbons. Sep 30, 1944. In German. 1.50

7740 - 7741 PB L 73587 Production of mono- and dinitro derivatives of the naphthene series. Sep 29, 1944. In German. 1.50

7742 - 7744 PB L 73587 Process for nitrating toluene. Sep 29, 1944. In German. 1.50

7745 - 7748 PB L 73587 Regeneration of thorium for catalyst production. Sep 15, 1944. In German. 1.50

7749 - 7754 PB L 73587 Reaction furnace with recuperative preheating. Aug 31, 1944. In German. 1.50

7755 - 7758 PB L 73587 Dechlorination of condensation and polymerization products of olefins. Aug 3, 1944. In German. 1.50

7759 - 7762 PB L 73587 Production of high molecular hydrocarbon oils by condensation and polymerization of hydrocarbons. Aug 1, 1944. In German. 1.50

7763 - 7772 PB L 73587 Starting gasoline engines at low temperatures. Jul 24, 1944. In German. 1.50

7773 - 7781
7782 - 7790 PB L 73587 Catalytic cracking of carbon monoxide hydrogenation products into olefinic, low-boiling hydrocarbons. Jul 20, 1944. In German. 2.00

7791 - 7796 PB L 73587 Fuel injection for starting injection engines. Jul 12, 1944. In German. 1.50

7797 - 7800 PB L 73587 Use of fuel vapors that form in fuel tanks and pipes. Jun 16, 1944. In German. 1.50

7801 - 7804 PB L 73587 Improvement of synthetic lubricating oils. Jun 8, 1944. In German. 1.50

7805 - 7809 PB L 73587 Testing the oxygen stability of lubricating oils. May 18, 1944. In German. 1.50

7810 - 7811 PB L 73587 Improving the efficiency of existing cracking plants. May 15 ,1944. In German. 1.50

7812 - 7815 PB L 73587 Production of resins. May 15, 1944. In German. 1.50

7816 - 7817 PB L 73587 Production of higher molecular compounds from lower molecular olefins. Apr 28, 1944. In German. 1.50

7818 - 7821 PB L 73587 Automatic sampling at low pressures. Apr 24, 1944. In German. 1.50

7822 - 7825 PB L 73587 Automatic dosing of exactly measured liquid volumes at greatly reducted pressures. Apr 4, 1944. In German. 1.50

7826 - 7835 PB L 73587 Process for dehydrogenating hydrocarbons with formation of aromatic substances. Mar 29, 1944. In German. 1.50

7836 - 7838 PB L 73587 Exhaling valve for gas-protection equipment. Mar 15, 1944. In German. 1.50

7839 - 7841 PB L 73587 Separating mixtures of sulfuric esters of higher molecular hydrocarbons on the one hand and paraffin-hydrocarbons on the other hand. Mar 10, 1944. In German. 1.50

7842 - 7844 PB L 73587 Removal of ashes from gas producers with moving grates. Mar 9, 1944. In German. 1.50

7845 - 7847 PB L 73587 Manufacture of high-grade lubricating oils from high molecular paraffins of the catalytic carbon monoxide hydrogenation. Feb 9, 1944. In German. 1.50

7848 - 7849 PB L 73587 Manufacture of synthetic soaps. Feb 8, 1944. In German. 1.50

7850 - 7854 PB L 73587 Manufacture of aliphatic carboxylic acids solidifying at low temperatures. Feb 4, 1944. In German. 1.50

7855 - 7858 PB L 73587 Manufacture of active dehydrogenation catalysts. Jan 15, 1944. In German. 1.50

7859 - 7860 PB L 73587 Polymerization of carbon monoxide hydrogenation products containing oxygen. Dec 31, 1943. In German. 1.50

7861 - 7872 PB L 73587 Manufacture of high-grade aviation gasoline from natural gasolines. Dec 20, 1943. In German. 1.50

7873 - 7877 PB L 73587 Automatic permanent gas-sampling apparatus with adjustable volume. Oct 30, 1943. In German. 1.50

7878 - 7881 PB L 73587 Manufacture of condensation products. Sep 15, 1943. In German; 1.50

7882 - 7883 PB L 73587 Manufacture of organic acids by oxidation of coal. Sep 15, 1943. In German. 1.50

7884 - 7886 PB L 73587 The increase of the resistance to aging of lubricating oils. Sep 9, 1943. In German. 1.50

7887 - 7890 PB L 73587 Removal of compounds containing oxygen from hydrocarbon mixtures. Sep 9, 1943. In German. 1.50

7891 - 7892 PB L 73587 Treatment of waste gases containing acid, especially nitrous gases. Sep 7, 1943. In German. 1.50

7893 - 7895 PB L 73587 Separating mixtures of sulfuric esters of higher molecular hydrocarbons on the one hand and paraffin hydrocarbons on the other hand. Aug 25, 1943. In German. 1.50

7896 - 7902 PB L 73587 Aromatization and dehydrogenation catalysts. Aug 20, 1943. In German. 1.50

7903 - 7907 PB L 73587 Activation of carbon monoxide hydrogenation catalysts. Jul 30, 1943. In German. 1.50

7908 PB L 73587 Note with regard to release of patent applications. Nov 4, 1943. In German. 1.50

7909 - 7914 PB L 73587 Starting of fuel injection engines. Aug 9, 1943. In German. 1.50

7915 - 7917 PB L 73587 Manufacture of carboxylic acids, or their salts from esters without formation of alcohols as by-products. Jul 23, 1943. In German. 1.50

7918 - 7920 PB L 73587 Processing residues of catalyst oils resulting from olefin polymerization to lubricating oils by means of aluminum chloride. Jul 21, 1943. In German. 1.50

7921 - 7924 PB L 73587 Olefin polymerization by means of metal halides. Jul 19, 1943. In German. 1.50

7925 - 7926 PB L 73587 Manufacture of carboxylic acids or their derivatives resulting from treatment with alkalis. Jul 15, 1943. In German. 1.50

7927 - 7928 PB L 73587 Manufacture of carboxylic acids or their derivatives resulting from treatment with alkalis. Jul 14, 1943. In German. 1.50

7929 - 7931 PB L 73587 Dechlorination of hydrocarbons. Jul 12, 1943. In German. 1.50

7932 - 7935 PB L 73587 Automatic apparatus for conveying small and very small amounts of liquids. Jul 10, 1943. In German. 1.50

7936 - 7940 PB L 73587 Separation mixtures of sulfuric esters of higher molecular hydrocarbons on the one hand and paraffin hydrocarbons on the other hand. Jul 9, 1943. In German. 1.50

7941 - 7942 PB L 73587 Manufacture of monomitro toluene from toluene. Jul 6, 1943. In German. 1.50

7943 - 7945 PB L 73587 Manufacture of pure chromium nitrate. Jul 5, 1943. In German. 1.50

7946 - 7950 PB L 73587 Manufacture of ammonium nitrate by neutralization of ammonia and nitric acid. Jul 16, 1943. In German. 1.50

7951 - 7954 PB L 73587 The removal of alcohol from hydrocarbon-alcohol-mixtures. Jun 29, 1943. In German. 1.50

7955 - 7957 PB L 73587 Removal of chromium from industrial products. Jun 21, 1943. In German. 1.50

7958 - 7960 PB L 73587 Valve with rubber jacketed gate. Jun 19 1943. In German. 1.50

7961 - 7964 PB L 73587 Manufacture of iron catalysts for low temperatures. May 20, 1943. In German. 1.50

7965 - 7968 PB L 73587 Manufacture of carboxylic acids or their derivatives from concentrated soap solutions. Apr 19, 1943. In German. 1.50

7969 - 7972 PB L 73587 Iron-catalysts for producing primarily olefinic and oxygen containing hydrocarbons during carbon monoxide hydrogenation. Mar 17, 1943. In German. 1.50

7973 - 7976 PB L 73587 Starting gasoline engines at very low temperatures. Mar 11, 1943. In German. 1.50

7977 - 7978 PB L 73587 Incompletely reduced catalyst material. Mar 11, 1943. In German. 1.50

7979 - 7980 PB L 73587 Suppression of foam formation during the washing of gas components. Feb 6, 1943. In German. 1.50

7981 - 7984 PB L 73587 Production of hydrocarbons by catalytic carbon monoxide hydrogenation. Jan 30, 1943. In German. 1.50

7985 - 7988 PB L 73587 Manufacture of calcium ammonium nitrate. Jan 28, 1943. In German. 1.50

7989 - 7991 PB L 73587 Delisting of magnesium oxide. Jan 23, 1943. In German. 1.50

7992 - 7995 PB L 73587 Testing apparatus for carrying out chemical reactions, especially high pressure reactions. Jan 21, 1943. In German. 1.50

7996 - 7998 PB L 73587 Preparation of fatty acid concentrates capable of forming soaps. Jan 14, 1943. In German. 1.50

7999 - 8003 PB L 73587 Enrichment of the olefin content of hydrocarbon mixtures. Jan 14, 1943. In German. 1.50

8004 - 8006 PB L 73587 Dehydrogenation of cyclic hydrocarbons. Jan 13, 1943. In German. 1.50

8007 - 8010 PB L 73587 Catalytic addition of water gas to olefins. Jan 9, 1943. In German. 1.50

8011 - 8013 PB L 73587 Preparation of carbon compounds containing oxygen by catalytic addition of water gas on olefins. Jan 8, 1943. In German. 1.50

8014 - 8016 PB L 73587 Simplified and improved measurement of dusty and fine-grained products. Dec 24, 1942. In German. 1.50

8017 - 8018 PB L 73587 Treatment of waste gases containing acid, especially nitrous gases. Dec 23, 1942. In German. 1.50

8019 - 8023 PB L 73587 Purification of synthetic fatty acids. Dec 22, 1942. In German. 1.50

8024 - 8027 PB L 73587 Decomposition of mixtures consisting of fatty acids or fatty acid salts and neutral oils. Dec 18, 1942. In German. 1.50

8028 - 8032 PB L 73587 Valve for tanks, especially for catalyst material. Nov 28, 1942. In German. 1.50

8033 - 8034 PB L 73587 Aromatization and dehydrogenation of hydrocarbons. Nov 17, 1942. In German. 1.50

8035 - 8038 PB L 73587 Aromatization or dehydrogenation of hydrocarbons. Nov 14, 1942. In German. 1.50

8039 - 8041 PB L 73587 Production of pure magnesium oxide suitable for the production of catalysts. Nov 11, 1942. In German. 1.50

8042 - 8044 PB L 73587 Activation of natural bleaching earths. By Kalippke. Apr 5, 1943. In German. 1.50

8045 - 8047 PB L 73587 Heterogeneous catalysis. By Kalippke. Apr 5, 1943. In German. 1.50

8048 - 8070 PB L 73587 Finely fractionating column with packing-bodies for laboratories. By Heinrich Trams. May 1, 1942. In German. 2.50

8071 - 8092 PB L 73587 Hydrocarbon synthesis. Jan 10, 1939. In German. 2.50

8093 - 8101 PB L 73587 Highly combustible fuels. May 28, 1942. In German. 1.50

8102 - 8106 PB L 73587 Nitration processes. May 11, 1942. In German. 1.50

8107 - 8110 PB L 73587 Report identical with 8102 - 8105. In German. 1.50

8111 - 8114 PB L 73587 Improvement of the properties of gasoline. Feb 27, 1942. In German. 1.50

8115 - 8121 PB L 73587 Fine distillation of gas. By Heinrich Trams. Apr 30, 1942. In German. 1.50

8122 - 8126 PB L 73587 Acetylene addition during the carbon monoxide hydrogenation. Apr 27, 1942. In German. 1.50

8127 - 8156 PB L 73587 Production of alkyl benzene from benzene and Ruhr-gas oil. Mar 20, 1942. In German. 3.00

8157 - 8160 PB L 73587 Structure of olefins and lubricating oil properties. Oct 28, 1941. In German. 1.50

8161 - 8171 PB L 73587 Operation of a fuel plant. By Krueger. Jan 16, 1941. In German. 1.50

8172 - 8172A PB L 73587 Atmospheric corrosion of metals. By Gubin. Jun 26, 1944. In German. 1.50

8173 - 8176 PB L 73587 Corrosion of iron pipes. By Gubin. Mar 31, 1942. In German. 1.50

8177 - 8182 PB L 73587 Materials for storing the catalyst for hydrocarbon aromatization. Jul 11, 1939. In German. 1.50

8183 - 8190 PB L 73587 Corrosion of steel. 1938. In German. 1.50

8191 - 8201 PB L 73587 Life of diluted cobalt catalysts of the hydrocarbon synthesis. By W. Herbert. Apr 26, 1939. In German. 1.50

8202 PB L 73587 Pressure synthesis of hydrocarbons. By Herbert. n.d. In German. 1.50
Incomplete. Continued on Reel K31, PB 70219.

PB L 73587-S. RUHRCHEMIE A.G., OBERHAUSEN/HOLTEN, GERMANY. Reports relating to fuels, chemical engineering and organic preparations. (FIAT Microfilm Reel K 30, Frames 7371-8202, abstract cards.) 1938 - 1946. 168 p. Price: Microfilm-$4.00 - Photostat-$12.00.
Brief abstracts of the individual items on the above reel K 30, PB 73587, prepared by FIAT personnel in Germany.

ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES

Electronics

PB L 87259. COOPER, B. F. A narrow beam recording radar altimeter for topographic survey. (Natl Res Council of Canada, Electrical Eng and Radio Branch Rept ERA-138/1). Oct 1947. 41 p. Price: Microfilm-$2.00-Photostat-$5.00.
A method of recording topographic profiles using an airborne radar altimeter is described. The instrument employs a 3.2 cm. pulse transmitter feeding a parabolic radiator four feet in diameter, mounted underneath the aircraft. This antenna directs the radiation vertically downwards in a beam whose effective width is 2°. The height of the aircraft above the small element of ground thus "illuminated" is measured by an automatic circuit, in terms of the pulse echo time. Presentation is in the form of a continuous graphic record (Esterline-Angus recorder), and when the aircraft is maintained at constant height above sea level, as indicated by a barometric altimeter, the graphic record becomes a scale drawing of the topographic profile. A reference level is established by including one or more points of known elevation in the ground track and recording of the barometric altitude allows correction to be made for deviations from level flight. Allowance is made for horizontal barometric pressure gradients, either by checking on known ground elevation at suitable intervals, or by analysing upper air data. Flight trails show that elevation differentials between water surfaces are being measured with an average accuracy of ±20 feet, while over rough country the accuracy is generally within ±50 feet, with occasional excursions to ±100 feet. Part I of this report deals with the design and operation of the equipment, while Part II describes the flight trails.

PB L 81581. DARRAH, W. C. Development of 5 and 10 megawatt S-band pulsed magnetron tubes and the high power modulator. Quarterly report. (Raytheon Manufacturing Co. Power Tube Div Rept QL-169-170) Jun 1947. 12 p. Price: Microfilm-$1.25 - Photostat-$2.00
Progress during the period from March 1 to June 1, 1947 on the development of two lots of high power pulsed magnetron tubes is reported. The 5-megawatt tube has been designated QL-169 and the 10-megawatt tube as QL-170. An appendix contains a summary of progress on the high power modulator.

PB L 86777. U. S. SIGNAL CORPS and U. S. BUREAU OF SHIPS. Operating manual for Army model SCR-515-A and Navy model ABA-1, radio equipment. (General Electric Instructions 15313-A). Apr 1942. 9 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85502. U. S. WAR DEPARTMENT. Rectifier RA-83-A. (Tech Manual 11-963). Jan 1944. 12 p. Price: Microfilm-$1.25 - Photostat-$2.00

PB L 85508. U. S. WAR DEPARTMENT. Technical operation radio equipments RC-182-A and RC-282-A; general description, operating instructions and equipment performance log. (Tech Manual 11-1308). Jul 1944. 129 p. Price: Microfilm-$4.25 - Photostat-$13.00
Radio equipments RC-182-A and RC-282-A are IFF radar sets which have been designed primarily for surface craft identification, but can also be used for aircraft identification.

PB L 85509. U. S. WAR DEPARTMENT. Trailers K-76-A and K-77-A. (Tech Manual 11-1090). Jul 1943. 76 p. Price: Microfilm-$2.75 - Photostat-$8.00
The subject trailers, operation and maintenance instructions for which are given in this manual, are used for carrying portable antennas.

FOOD AND KINDRED PRODUCTS

PB L 81585. BURTON, W. G. Mashed potato powder. III. The high-temperature browning of mashed potato powder. Jul 1945. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00
If mashed potato powder is stored at different temperatures two dypes of deterioration may be detected: (1) the development of a brown color and charred taste, and (2) the development of an off-flavor. Both are accelerated by increasing the storage temperature but at high temperatures the latter is masked by the former. Both are influenced by moisture content, a high moisture content promoting the first and retarding the second. The first type of deterioration is the subject of this report. Low Temperature Research Station, Cambridge, Department of Scientific and Industrial Research.

*PB L 81697. CAPSTICK, E. and others. Further developments in dairying in Germany. (BIOS Final Rept 770, Item 22, 31). Sep 1946. 55 p. Price: Microfilm-$2.25 - Photostat-$6.00
This report describes in detail the pasteurization of milk by Ultra-violet light in operation at Hansa Meierei in Lübeck, Germany, also operation and development of the Alfa-Laval and Fritz machine for rapid butterraking processes. Short notes on the machinery testing at Kiel and visits to the engineering works at Bergedorf Eisenwerke and the Westphalia Separator Co., Oelde, are also included as well as tables, photographs, and sketches.

PB L 87208. ESPENSHADE, ADA V. and others. Japanese fisheries production, 1908-46. (A statistical report). (Supreme Commander for the Allied Powers, Natural Resources Sect Rept 95). Oct 1947. 41 p. Price: Microfilm-$2.00 - Photostat-$5.00
This report presents production statistics of the Japanese fishing industry from 1908 through 1946. Fishery production was at its peak during 1931-38 when total annual production, including that of colonies, varied from 4,900,000 to 6,900,000 metric tons. Excluding colonial totals, annual production ranged from 3,500,000 to 4,900,000 metric tons during this period. Prior to World War II Japanese fisheries production came from operations in coastal and inland waters, offshore waters, overseas waters, and colonial fisheries (these operations are defined later in this report). The largest tonnage was obtained from coastal and inland waters, which averaged about 2,897,000 metric tons from fishing operations and 140,000 tons from aquiculture annually during 1931-38. Hokkaido leads in production from coastal and offshore fisheries, accounting for more than one-third of the total. Tohoku, Kanto, and Kyushu are also regions of major production. The production and processing of marine products employed about 1,500,000 persons, full or part-time, in Japan Proper during 1931-38. About 363,000 fishing boats were used. The production from Japanese fisheries varies considerably from year to year, chiefly because of the irregular occurrences of two important pelagic species, sardines and herring. Some Japanese

fisheries evidence depletion, owing to overfishing. One of the fisheries for which statistical data indicating this depletion are available is the trawl (kisensokobiki) fishery for sea bream (tai).

*PB L 86147. HOLMES, N. E. and KEFFORD, J. F. Manufacture of "Milei," egg substitutes. (BIOS Final Rept 1513, Item 22). n. d. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

The history of the development in Germany of a range of egg-substitutes, known as "MILEI", from skim-milk and whey has been fully reported by Bate-Smith, Gane, Tomkins and Cook in B.I.O.S. final report No. 275, Section IV, pp. 88-93 and appendices 1-5. The object of the present visit was to obtain further detailed information on procedures and equipment by actually seeing "MILEI" products in the process of manufacture. Two plants were visited, and the detailed informations obtained are presented in this report.

PB L 81583. LEA, C. H. and others. The effect of temperature of pre-heating, of clarification and of bacteriological quality of the raw milk on the keeping properties of whole-milk powder dried by the Kestner spray process. Mar 1945. 13 p. Price: Microfilm-$1.25 - Photostat-$2.00

Increasing the pre-heating temperature of the milk from 165-190° F. before spray-drying greatly improved the resistance of the powder to the development of tallowy off-flavors on storage. More careful plant and bacteriological control had relatively little effect on its keeping qualities. It is suggested that the protective effect of the high pre-heating temperature is due (a) to production in the milk of anti-oxidant-active sulphydryl compounds, by the action of heat on the proteins, and possibly (b) to more complete destruction of oxidising enzymes originally present in the milk or produced by bacteria growth. Journal of Dairy Research, Great Britain.

PB L 81586. RUSHTON, E. and others. Compressed dehydrated vegetable blocks. Sep 1945. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00

This report deals with the dehydration of cabbage and potato by means of high frequency heating (a) in the open air and (b) vacuum methods. Table V gives comparative data for these methods. Reprint from Chem. & Ind., 35, 274-276, (Sept. 8, 1945).

PB L 81584. SHEWAN, J. M. The bacteriology of dehydrated fish. I. Qualitative and quantitative studies of the drying process. Sep 1945. 17 p. Price: Microfilm-$1.25 - Photostat-$2.00

In the experiments designed to find the most appropriate methods for the dehydration of fish, it was early recognized that bacteriological control would be necessary in order to ensure the safety of the final product. Many preliminary experiments were performed before a suitable method was found for commercial production. In these experiments data were obtained and are given to illustrate the general argument, although most of the results are concerned largely with the method finally adopted. Torry Research Station, Aberdeen, Department of Scientific and Industrial Research.

PB L 86202. WALDEE, EDWARD L. and ROBERTS, RAYMOND. Japanese food crop diseases and control. (Supreme Commander for the Allied Powers. Natural Resources Sect Rept 94) Oct 1947. 40 p. Price: Microfilm-$1.75 Photostat-$4.00

Plant diseases form one of the four most important limiting factors of agricultural production. Upon this production depends the future of nations. Plant pathologists throughout the world estimate that total crop losses average from four to six percent annually. This may vary according to the season and the crop from no appreciable loss to total crop failure. Crops included in this report are rice and the staple grains (wheat and barley) Irish or white potatoes, and sweet potatoes. By far the most important disease of rice is "blast" which causes one-half the annual loss. Seven other diseases are considered of importance. Cereal rusts are the most important group of wheat and barley diseases. With the exception of three diseases which are grouped under the heading "snow blight" or "snow damage", the cereal diseases are typical of those found in America. The most important disease of sweet potatoes is "black rot" which causes much annual loss by reducing the storage ability of the crop. Irish or white potatoes are a comparatively new crop in Japan. Their diseases are comparatively few, but serious, and were imported with the potato. These are primarily virus diseases, early and late blight. Owing to the lack of satisifactory insecticides for the control of aphid transmitters of virus diseases, this group of diseases has assumed considerable importance. Disease surveys are conducted to predict epidemics. Disease epidemic forecasting will aid in disease control when it is most needed. A better educational system will improve the knowledge of the Japanese farmers on these matters and aid in year round food economy. Cuprecus and mercuric fungicides, unlike the insecticides, are adequately available in Japan. Their proper use is a matter of education. Government subsidies have been granted for concerted disease control effort and for pathological research. Under the present financial stresses some of these subsidies have been discontinued.

INSTRUMENTS (PROFESSIONAL, SCIENTIFIC AND CONTROLLING)

PB L 85622. BERGHOEFER, FRED G. Instructions for use of LAA and LAB wavemeters. (Naval Res Lab Rept RA 74A 345A). n. d. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85624. BERGHOEFER, F. G. Instructions for use of model LAC wavemeter. (Naval Res Lab Rept RA 74A 345A). Feb 1945. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85818. CURTIS, W. F. and RICH, H. L. Experimental determination of the suitability of crystal accelerometers for shock measurements. (David W. Taylor Model Basin Rept R-246). May 1944. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

An improvement in the method of expressing the calibration constants of crystal accelerometers is suggested. A steady-state method for obtaining these constants is briefly described and the results of three calibration experiments are presented. It is shown that, in one type of impact test, the value of maximum velocity obtained from the accelerometer record agrees closely with the value of the maximum velocity as measured by a ballistic method. Tables and figures are included.

PB L 85796. GEIGER, J. A new torsiograph suitable for high RPM's. (David W. Taylor Model Basin Translation 96). Dec 1941. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00

In this article translated from German the limits of error of standard torsiographs are discussed. A new design is described in which the following improvements are embodied. The mass of the drive pulley is many times smaller than in other designs; the customary spiral clock spring is replaced by two leaf springs; the transmission arms are built to eliminate the effects of centrifugal force. Test data are given. The testing range is about 10,000 cycles per minute. Fourteen figures are included.

Instruments (contd)

PB L 86429. GRUBBS, F. E. Methods for estimating precision of measuring instruments and product variability (Aberdeen Proving Ground Ballistic Res Lab Rept 642) Jun 1947. 32 p. Price: Microfilm-$1.75 - Photostat-$4.00

A measurement or observed value is discussed as the sum of two components—one the absolute value of the characteristic measured and the other an error of measurement. The variation in absolute values of the characteristic or items measured is termed product variability, whereas the variation in errors of measurement of an instrument is called the precision or reproducibility of measurement. Techniques are given for separating and estimating product variability and precision of measurement. Comparisons of the various techniques are also discussed for cases involving two or more instruments.

* PB L 87242. HONICK, K. R. The activities and products of the firm of Bopp and Reuther GmbH, Neckargemund, with special reference to fluid flowmeters. (BIOS Final Rept 1193, Item 9,31). Jul 1945. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00.

The firm's premises at Neckargemund are a dispersal factory of the parent organization which is in Mannheim, Waldhof. Production was confined to volumetric fluid flowmeters of all sizes for a very wide range of liquids, all being of the same basic design known as the oval wheel meter. These meters were widely used in chemical industry, by the German Navy for oil meters for U boats and torpedo boats, and by the aircraft engine industry as fuel flowmeters for test bed work. An experimental meter for aircraft use had been made for Rechlin. The principle on which these meters work is novel, employing oval gears and is described in Appendix 1 of this report. The chief advantage appears to be the high torque combined with high efficiency which the meter unit produces; this renders it possible not only to drive Veeder type counters directly by gearing or by a flexible shaft for remote indication giving total consumed, but also to differentiate the total by driving a tachometer device such as a centrifugal speed indicator or electrical generator and voltmeter to give a continuous indication of rate of flow. The additional load imposed results neither in loss of accuracy nor excessive pressure drop across the meter. An accuracy of ±0.5% on total and ±1% on rate of flow is claimed.

PB L 85902. MCGOLDRICK, R. T. Experiments with vibration neutralizers. (David W. Taylor Model Basin Rept 449). May 1938. 24 p. Price: Microfilm-$1.50 - Photostat-$3.00

This report describes experiments with various forms of vibration neutralizers or dynamic vibration absorbers. These experiments were undertaken with a view to determining the feasibility of applying such devices to the problem of eliminating general hull vibration as well as certain local vibrations on board ship. Various attempts to improve the operation of neutralizers by subjecting the inertia element to periodic impulses properly phased with respect to the forces acting on the vibrating structure are discussed. The problems arising in attempting to build large size neutralizers such as would be required on ships are also discussed.

PB L 85812. MILLER, B. L. and others. The performance of wire-resistance strain gages as influenced by the drying time of three mounting cements. (David W. Taylor Model Basin Rept R-213) Jan 1946. 22 p. Price: Microfilm-$1.50 - Photostat-$3.00.

The performance under static strains of Baldwin-Southwark SR-4 wire-resistance strain gages attached to tensile test specimens with three different cements was investigated to establish the drying period required for a cement-mounted gage to respond linearly and at full sensitivity without hysteresis. Supplementary weighing tests on the rate of evaporation of a readily available commercial cement were performed and the results are given. The change of resistance with time of an unstressed, drying gage was observed. Four tables and eight figures are included.

PB L 85834. MEZGER, ROBERT G. The TMB linear sweep oscillator. (David W. Taylor Model Basin Rept 483). Dec 1941. 9 p. Price: Microfilm-$1.00 - Photostat-$1.00

The development by the David W. Taylor Model Basin of the linear "round-trip" sweep oscillator for use with commercial cathode-ray oscillographs occasioned a considerable interest in this design. It possesses certain advantages over other sweep-circuit oscillators and, inasmuch as it was not of such confidential nature as other sections of the T.M.B. report from which it was taken, it was reproduced to permit wider distribution which had been demanded of this material. Detailed diagrams and simplified schematic circuits are included. The equipment described in this report was designed by George W. Cook under the leadership of Gilbert H. Curl.

PB L 86432. NAN, E. JR. Operation and calibration of NRL type B servoscope. Instruction book. A edition. (Nav Res Lab Rept RA 60A 300). Jun 1944. 22 p. Price: Microfilm-$1.50 - Photostat-$3.00

PB L 74311. SIEMENS & HALSKE A. G., BERLIN, GERMANY. Electric clocks, fuses, and measuring devices. (FIAT Microfilm Reel GG 16, Frames 1850-2316) 1938-1942. 467 f. Price: Microfilm-$5.50 + Enlargement print-$47.00

This FIAT microfilm reel consists of descriptions and advertising pamphlets on electric clocks, fuses and measuring apparatus as listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $5.50. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
1850-1946 PB L 74311	Electric master and auxiliary clocks for time service and time signal stations. Technical descriptions, operating and maintenance instructions, drawings and photographs. 1942. In German.	$10.00
1947-1961 PB L 74311	Fuses, their application possibilities, operating conditions including a new safety system for telecommunication apparatus. Drawings and photographs. n.d. In German.	1.50
1962-1973 PB L 74311	Needle and light-indicating galvanometers. Pamphlet. 1940. In German.	1.50
1974-2008 PB L 74311	Recording volt, ampere and watt meters. Pamphlet. 1941. In German.	3.50
2009-2020 PB L 74311	X-ray equipment for coarse and fine structure examination. Pamphlet. 1941. In German.	1.50
2021-2046 PB L 74311	Loop oscillographs. Pamphlet. 1942. In German.	3.00
2047-2061 PB L 74311	Voltage transformers. Pamphlet. 1942. In German.	1.50
2062-2068 PB L 74311	High-voltage vacuum-tube rectifiers. Pamphlet. n. d. In German.	1.50
2069-2079 PB L 74311	Instruments for testing iron. Pamphlet. 1939. In German.	1.50
2080-2093 PB L 74311	Portable cable testing apparatus. Pamphlet. 1941. In German.	1.50
2094-2116 PB L 74311	Precision resistors and capacitors. Pamphlet. 1939. In German.	2.50
2117-2123 PB L 74311	Compensation measuring apparatus. Pamphlet and drawings. 1938. In German.	1.50

2124-2146 FB L 74311 — Portable measuring instruments for industry. Pamphlet. 1941. In German. 2.50

2147-2173 FB L 74311 — Portable precision measuring apparatus and instrument transformers. Pamphlet and drawings. 1940. In German. 3.00

2174-2220 FB L 74311 — Round-face dash-board instruments. Pamphlet and drawings. 1941. In German. 5.00

2221-2251 FB L 74311 — Compact dash-board instruments. Pamphlet. 1941. In German. 3.50

2252-2271 FB L 74311 — Measuring bridges. Pamphlet. 1939. In German. 2.00

2272-2283 FB L 74311 — Mirror galvanometers. Pamphlet. 1939. In German. 1.50

2284-2316 FB L 74311 — Current transformers. Pamphlet. 1940. In German. 3.50

FB L 74361. SIEMENS & HALSKE A. G., BERLIN-SIEMENSSTADT, GERMANY. Pamphlets and drawings on electric control devices. (PIAT Microfilm Reel 66-17, Frames 2317-2588) 1941-1946. 270 f. Price: Microfilm-$3.50 - Enlargement print-$27.00.

This PIAT microfilm reel consists of drawings and advertising pamphlets for electric measuring and control devices as listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $3.50. Please include FB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
2317-2337 FB L 74361	Current and voltage control devices for low, medium and high power. 1941. In German. Pamphlet.	$2.50
2338-2344 FB L 74361	High-voltage relay. 1946. In German. Drawings.	1.50
2345-2349 2435-2456 FB L 74361	Resistance thermometer. 1946-1941. In German. Drawings and pamphlet.	4.00
2350-2354 2458-2472 FB L 74361	Thermoelectrical pyrometer. 1941,1946. In German. Drawing and pamphlet.	2.00
2355-2356 FB L 74361	Radiation pyrometer. 1945. In German. Drawing.	1.50
2357-2362 FB L 74361	Gas testing equipment. 1946. In German. Drawings.	1.50
2363-2366 FB L 74361	Moving-coil meter. 1946. In German. Drawings.	1.50
2367-2368 FB L 74361	Voltmeter. 1946. In German. Drawing.	1.50
2369-2370 FB L 74361	Level regulator. 1946. In German. Drawing.	1.50
2371-2424 FB L 74361	Water meters and water testing equipment. 1941-1946. In German. Pamphlet and drawings.	5.50
2473-2514 FB L 74361	Conductivity meters for watery solutions. 1941. In German. Pamphlet.	4.50
2515-2546 FB L 74361	Electric recorders for thermometric equipment. 1944. In German. Pamphlet.	3.50
2547-2586 FB L 74361	Electric regulator and control equipment. 1941. In German. Pamphlet.	4.00

FB L 85615. U. S. NAVAL RESEARCH LABORATORY. PHYSICAL OPTICS DIVISION. Instructions for optical tester for type A devices. Construction, use and calibration. (Rept A 859 A). Apr 1945. 11 p. Price: Microfilm-$1.25 - Photostat-$2.00

The equipment described in this volume is used to determine the threshold and resolution values of type A, A-1, and AM NAN receivers.

FB L 86461. U. S. SIGNAL CORPS. ENGINEERING LABORATORIES, BELMAR, N. Y. Askania contact oscillograph. New design of the contact oscillograph. (Supplement to pamphlet "Schwing 105" (Oscillator 105, SIGLS-59). n. d. 21 p. Price: Microfilm-$1.50 - Photostat-$3.00

This pamphlet describes an oscillograph with attachments for all vibration measurements on motors, vehicles, and structures. The new design features an additional recording device for accurate determination of the phase of a vibration with relation to the position of the rotating body, e. g. relative to the dead point of a crankshaft or to the position of the camshaft. The second recorder also permits the comparison of several processes two of which affect the recorder, and the third, the contact rod. In this way the retardation of relays, control processes, etc. can be measured. Photographs are included. This is an English translation of a German report.

PB L 85504. U. S. WAR DEPARTMENT. Wind equipment SCM-20-A and wind equipments AN/GMQ-1 and AN/GMQ-1-A. (Tech Manual 11-429). Sep 1946. 105 p. Price: Microfilm-$3.50 - Photostat-$11.00

FB L 85616. WADDEL, RAMOND C. Instructions for NRL no. 102 generating voltmeter serial no. 20. Designed and built by Electricity and Magnetism Section, Mechanics and Electricity Division. (Naval Res Lab Rept A 699A). May 1944. 19 p. Price: Microfilm-$1.25 - Photostat-$2.00

MACHINERY (EXCEPT ELECTRICAL)

PB L 85728. BECKER, WILLIAM J. Service test of launching reel ML-367 ()/AM. (Air Proving Ground, Eglin Field Fla. Project TS 46-177 Sep 1947. 25 p. Price: Microfilm-$1.50 - Photostat-$3.00

This report describes the tests made on two launching reels to determine the suitability for use in launching balloon-borne radiosondes to prevent damage to the instruments or loss of the balloons. Both reels were found not suitable for the purpose intended, but one could be made suitable provided certain changes were made. Nine photographs are included.

PB L 85804. CURTIS, W. P. Dynamic strain measurements in the crankshaft of a Diesel engine. (David W. Taylor Model Basin Rept R-154.) Oct 1943. 12 p. Price: Microfilm-$1.25 - Photostat-$2.00

Alternating strains in the crankshaft of a 2000-HP Fairbanks-Morse diesel engine were measured by six electrical-resistance strain gages attached to the web of the crankshaft which was nearest the load and hence was subjected

to the highest stress. Measurements were made at a series of speeds and loads up to rated load, both with and without torsional dampers on the crankshaft. The rated load without dampers was 1200 HP at 720 RPM; with dampers it was 2000 HP at 900 RPM. A photograph, circuits, figures, schematic diagrams and charts are included.

PB L 85836. DAY, J. W. Static strength tests of Diesel engine crankcases GMC 16-184 and GMC 16-184-A for 110-foot patrol boats. (David W. Taylor Model Basin Rept 501). Aug 1943. 29 p. Price: Microfilm-$1.50 - Photostat-$3.00

This report describes the static strength tests of two full-scale diesel engine crankcases, designed for a unit of 16 cylinders in 4 vertical banks of 4 cylinders each. The crankcases were of welded steel construction, and were built up of forged cylinder deck plates and steel-plate walls and traverse bulkheads. The static tests indicated that the crankcases had adequate strength for all service requirements. The dynamic and endurance strength of the crankcases were not investigated in these tests. Appendices I, II and III contain: Structural details of the crankcases; Synopsis of the preliminary report on stress analysis; and synopsis of the report "bearing load analysis" respectively. Illustrations, sketches and a test loading log table are included.

PB L 85769. HERZOG, A. Six ton Schenck fatigue testing machine. (AAF AMC Rept TSEAM-M5319; AAF Tech Rept 5623) Aug 1947. 26 p. Price: microfilm-$1.50 - Photostat-$3.00.

In this report the resonance principle in its use for fatigue testing machines is described in particular as applicable to a Schenck (German) fatigue testing machine for axial loads. The theory, the calibration and the aligning of the machine parts, are described. Different specimen shapes are briefly discussed. The procedure for operating the machine and a preliminary SN-diagram for SAE 2330 steel under fluctuating tensile and reversed stresses (zero to a maximum) are given.

PB L 73495. I.G. FARBENINDUSTRIE A.G. FRANKFURT AM MAIN, GERMANY. Instructions for handling various machinery. (FIAT Microfilm Reel C 38, Frames 3690-4860). 1921-1941. 1170 f. Price: Microfilm - $6.00 - Enlargement Print-$117.00.

This reel was prepared by FIAT investigators in Germany. 55 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
3690 - 3694 PB L 73495	Twist drills. Feb 1928. In German.	1.50
3695 - 3697 PB L 73495	Tapered tool shanks. 1921. In German.	1.50
3698 - 3701 PB L 73495	Installation of machine tools. 1924. In German.	1.50
3702 - 3703 PB L 73495	Milling machines and cutting heads. 1924. In German.	1.50
3704 - 3717 PB L 73495	Directions for crane operators. n.d. In German.	1.50
3718 - 3723 PB L 73495	Fire prevention directives for various workshops. Apr 1940. In German.	1.50
3724 - 3728 PB L 73495	Operating instructions for steam cranes. 1924. In German.	1.50
3729 - 3735 PB L 73495	Pipe lines. Feb 1924.. In German.	1.50
3736 - 3741 PB L 73495	Blue printing method. 1924. In German.	1.50
3742 - 3744 PB L 73495	Maintenance of typewriters. 1924. In German.	1.50
3745 - 3748 PB L 73495	Directions for railroad yard service. 1924. In German.	1.50
3749 - 3755 PB L 73495	Maintenance and operation of steam engines. 1924. In German.	1.50
3756 - 3759 PB L 73495	Anti-friction roller bearings. 1933. In German.	1.50
3760 - 3776 PB L 73495	Transmission and transmission couplings. 1924 - 1928. In German.	2.00
3777 - 3779 PB L 73495	Steel casting. 1923. In German.	1.50
3780 -3807 PB L 73495	Belt drives. 1938. In German.	3.00
3808 - 3812 PB L 73495	Artificial illumination of factories. 1940. In German.	1.50
3813 - 3836 PB L 73495	Rope and chain fastenings. 1939. In German.	2.50
3837 - 3840 PB L 73495	Signals for railroad yard service. 1926. In German.	1.50
3841 - 3843 PB L 73495	Operating instructions for electric carts. n. d. In German.	1.50
3844 - 3846 PB L 73495	Loading platforms and loading racks. 1926. In German.	1.50
3847 - 3849 PB L 73495	Glue for the wood processing industry. 1926. In German.	1.50
3950 - 3852 PB L 73495	Drilling. 1926. In German.	1.50
3853 - 3881 PB L 73495	Glues. 1941. In German.	3.00
3882 - 3885 PB L 73495	Tension pulleys. 1926. In German.	1.50
3886 - 3889 PB L 73495	Cutting tools. 1926. In German.	1.50
3890 - 3891 PB L 73495	Grinding of faucets. 1926. In German.	1.50
2892 - 2895 PB L 73495	Adjustment of turning tools. n.d. In German.	1.50
3896 - 3900 PB L 73495	Cooling and lubrication in metal working. n.d. In German.	1.50
3901 - 3923 PB L 73495	Metal grinding. 1927. In German.	2.50
3924 - 3932 PB L 73495	Power presses. 1927. In German.	1.50
3933 - 3938 PB L 73495	Reamers. 1927. In German.	1.50
3939 - 3946 PB L 73495	Saw blades for metal work. 1927. In German.	1.50
3947 - 3951 PB L 73495	Storing of coal. 1927. In German.	1.50
3952 - 3971 PB L 73495	Pneumatic machine tools. 1940. In German.	2.00
3972 - 3979 PB L 73495	Soldering. 1928. In German.	1.50
3980 - 4048 PB L 73495	Wood working. 1940. In German.	7.00

Machinery (contd)

4049 - 4056 PB L 73495 Coal dust plants. n.d. In German. 1.50

4057 - 4061 PB L 73495 Jigs and fixtures for machines and tools. 1932. In German. 1.50

4062 - 4078 PB L 73495 Jig saw blades. 1939. In German. 2.00

4079 - 4091 PB L 73495 Packing of sewing machines. 1932. In German. 1.50

4092 - 4102 PB L 73495 Cutting tools. n.d. In German. 1.50

4103 - 4109 PB L 73495 Packing with steel strip and wire. n.d. In German. 1.50

4110 - 4113 PB L 73495 Stop watches. n.d. In German. 1.50

4114 - 4117 PB L 73495 Characteristics and handling of rubber goods. n.d. In German. 1.50

4118 - 4173 PB L 73495 Bright drawn profile bars from steel and iron. n.d. In German. 6.00

4174 - 4179 PB L 73495 Calculation of belt drives. n.d. In German. 1.50

4180 - 4220 PB L 73495 Multiple blade saw frame. 1933. In German. 4.50

4221- 4264 PB L 73495 Pre-print of forms for recording industrial information. 1929. In German. 4.50

4265 - 4298 PB L 73495 Perforating technique. 1925. In German. 3.50

4299 - 4714 PB L 73495 Gear drives. 1929 - 1939. In German. 42.00

4715 - 4727 PB L 73495 Calculation tables for machinery. 1935. In German. 1.50

4728 - 4737 PB L 73495 Water level indicators. n.d. In German. 1.50

4738 - 4842 PB L 73495 Pre-print of forms for recording industrial information. n.d. In German. 1.50

4843 - 4860 PB L 73495 Perforating technique. n.d. In German. 2.00

PB L 73495-S. I.G. FARBENINDUSTRIE A.G., FRANKFURT AM MAIN, GERMANY. Instructions for handling various machinery. (FIAT Microfilm Reel C 38, Frames 3690-4860, abstract cards.) 1921-1941. 55 p. Price: Microfilm -$2.00 - Photostat-$4.00.
Brief abstracts of the individual items on the above reel C 38, PB 73495, prepared by FIAT personnel in Germany.

PB L 85794. OSTERTAG, P. The entropy diagrams of internal combustion engines including gas turbines. (David W. Taylor Model Basin Translation 94). Oct 1941. 75 p. Price: Microfilm-$2.75 - Photostat-$8.00
This, the second edition of the treatise on "Entropy Diagrams of Internal Combustion Engines" was published in 1928 by Julius Springer, Berlin. An essential change of the subject was not made; supplements and addenda, however, were considered essential. Utmost simplicity of the calculations and clearness of presentation were the basic aim in all problems involved in this treatise. The fundamental principles concerning the properties of gas mixtures and their combustion discussed in Part I are used in Part II to illustrate methods of calculating, based on varying conditions, and designs of combustion engines with reciprocating pistons for various conditions. Part III is concerned with the design of the gas turbine, special stress being laid on the constant-pressure turbine. In Part IV several special problems are discussed, the most prominent of which is the method of supercharging. Tables and sixteen figures are included.

PB L 3481-6. PILLER, ANTON, K. G., OSTERODE/HARZ. High and low pressure blowers; propeller blowers etc. (Supplement to PB 3481, vol. 1, p. 270). (FIAT Final Rept 489, supp.). 1941. 31 p. Price: Microfilm-$1.00 - Photostat-$2.00
This supplement consists of illustrated pamphlets on various types of electric and belt driven blowers for industrial use. In German, except one pamphlet on forge blowers in English.

PB L 3481-62. DEMAG A. G., DUISBURG, GERMANY. Turbo-compressors and blowers. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 2). n. d. 31 p. Price: Microfilm-$1.00 - Photostat-$2.00
This illustrated pamphlet lists DEMAG installations in Germany and foreign countries. In German.

PB L 3481-63. ACKERET, J. and KELLER, C. Aerodynamic turbine with closed circuit; aerodynamic turbine compared with steam- and gas-turbines. (Reprint from Escher Wyss News 1942/43). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 3). 1943. 37 p. Price: Microfilm-$1.00 - Photostat-$2.00
This report discusses: (1) the advantages of hot air turbines, Carnot cycle; (2) the double-isotherm cycle; (3) the turbine plant with closed circuit and output limits of closed-circuit turbines; (4) influence of circuit density on dimensions, efficiency, heat exchanger, and air heater; (5) the test plant at the Escher Wyss Engineering Works Ltd. Zurich, Switzerland; etc. as well as a comparison of aerodynamic, steam, and gas turbines. In English.

PB L 3481-64. DEMAG A. G., DUISBURG, GERMANY. Turbo blowers for conveying by-product coke oven gas and illuminating gas: (abstracted from "Demag Nachrichten"). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 4). n. d. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated leaflet on Demag equipment of gas plants. In German.

PB L 3481-65. BABCOCK WERKE, OBERHAUSEN, GERMANY. Blowers. (Supplement to PB 3481). (FIAT Final Rept 489, supp 5). n. d. 78 p. Price: Microfilm-$2.00 - Photostat-$6.00
This is an illustrated catalog covering Babcock fresh air blowers, dust exhaust systems, forced-draft blowers, and axial compressors. Some illustrations have been cut out of this publication. In German.

PB L 3481-66. WESTFALIA-DINNENDAHL-GRÖPPEL A. G., BOCHUM, GERMANY. "Are your mine ventilators operating efficiently?"). (Supplement to PB 3481). (FIAT Final Rept 489, supp 6). n. d. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated leaflet on WEDAG mine ventilating equipment. In German.

PB L 3481-67. ESCHER WYSS ENGINEERING WORKS, LTD., ZURICH, SWITZERLAND. Propeller and propeller control construction. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 7). n. d. 64 p. Price: Microfilm-$2.00 - Photostat-$5.00
This publication contains articles on (1) Variable pitch propellers; (2) dynamic balancing of aircraft propellers; (3) axial compressors; (4) propeller pumps; (5) Escher Wyss variable pitch propeller installations on ships; (6) water turbine controls; (7) special controls for steam turbines and compressors; and (8) systematic controls. Drawings and photographs are included. In German.

PB L 3481-68. ESCHER WYSS ENGINEERING WORKS, LTD., ZURICH, SWITZERLAND. Compressors and pumps. (Escher Wyss News, vol. XIV, 1941). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 8). 1941. 128 p. Price: Microfilm-$3.00 - Photostat-$9.00
This illustrated volume consists of the following articles: (1) Common principles and research for compressors and pumps; (2) Standard diagrams for losses of gas, steam, and liquid pressure; (3) Rotation losses at the rear of turbine impellers;

Machinery (contd)

(4) Designs and uses of compressors; (5) The adiabatic exponent for high-temperature compressed air; (6) Heat pumps for evaporation; (7) Heating systems with heat pumps; (8) Quick freezing plants; (9) Cold storage plants for fruits and vegetables; (10) Turbo pumps for various purposes; (11) Compressors and plant for the production of CO_2; and (12) New test method for turbo pumps. Several illustrations have been cut out of this publication. In English.

PB L 3481-809. WESTFALIA-DINNENDAHL-GRÖPPEL A. G., BOCHUM, GERMANY. Blowers for all industrial purposes. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 9). n. d. 52 p. Price: Microfilm-$2.00 - Photostat-$4.00
This illustrated catalog covers exhaust fans, dust collecting equipment down-draft systems for boiler firing, fume dispersion equipment for textile and pharmaceutical plants, blowers for blast furnace, coke oven, and generating gases, mine ventilating equipment, etc. In German. Several illustrations have been cut out.

PB L 4581-810. MEIERLING, HEINRICH, LAUFENBURG, GERMANY. High pressure electric fans. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 10). n. d. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00
A price list of Meierling high pressure blowers for industrial furnaces. In German.

PB L 3481-811. VOITH, J. M., HEIDENHEIM, GERMANY. Model test for cooling air blowers. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 11). Apr 1944. 42 p. Price: Microfilm-$1.00 - Photostat-$3.00
This report concerns tests of a continuous blower for an aircraft engine test stand. The tests were conducted for the DVL on a blower operating at 1450 r.p.m. Text is in German and English. Drawings and graphs are included.

PB L 3481-812. SCHENCK, CARL, MASCHINENFABRIK DARMSTADT G.M.B.H., DARMSTADT, GERMANY. Dynamic balancing equipment. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 12). 1945. 34 p. Price: Microfilm-$1.00 - Photostat-$3.00
This publication covers Schenck balancing machines, and includes a reprint of "The problem of accuracy in balancing" by H. Oschatz from "ATZ Automobiltechnische Zeitschrift" vol. 45, No. 4, 1942, and a reprint of "Localized balancing" by H. Oschatz from "Zeitschrift des Vereines deutscher Ingenieure" vol. 88, No. 27/28, 1944. Photographs and diagrams are included (several illustrations have been cut out). In German.

PB L 3481-813. WESTFALIA-DINNENDAHL-GROEPPEL A. G., BOCHUM, GERMANY. Mine ventilating fans. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 13). 1944. 41 p. Price: Microfilm-$1.00 - Photostat-$3.00
An illustrated catalog with tables for use in calculating mine ventilating equipment. Several illustrations have been cut out. In German.

PB L 3481-814. MEIERLING, HEINRICH, LAUFENBURG, GERMANY. Dual propeller ventilators; turbo blowers. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 14). n. d. 14 p. Price: Microfilm-$1.00 - Photostat-$1.00
Data tables and price lists for Meierling equipment. In German. (Several illustrations have been cut out).

PB L 3481-815. DEMAG A. G., DUISBURG, DUISBURG, GERMANY. "Demag Nachrichten": Turbo compressors for production of compressed air, vol. 15, No. 1, 1941. (FIAT Final Rept 489, supp. 15). Apr 1941. 28 p. Price: Microfilm-$1.00 - Photostat-$2.00
This issue covers the design thermodynamics, efficiency, manufacture, and tests of DEMAG turbo compressors. Diagrams, graphs, and photographs are included. (Several illustrations have been cut out). In German.

PB L 3481-816. DEMAG A. G., DUISBURG, GERMANY. Multistage turbo blowers. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 16). 7 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated pamphlet on DEMAG equipment for the chemical industry, coking plants, pneumatic conveyors, wind tunnels, etc. In German. (One illustration is missing).

PB L 3481-817. GAEHLER, W. Axial blowers. (Reprint from Escher Wyss News, vol. XIII, 1940). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 17). 1940. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00
This illustrated article describes axial blowers manufactured by Escher Wyss Engineering Works Ltd. Zurich, Switzerland. Several illustrations are missing. In English.

PB L 3481-818. RODENMÜLLER. Dust control in industry. (Reprint from Der Bergbau, bergtechnische Fachzeitschrift, No. 21, Oct. 14, 1937). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 18). 1937. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00
This article describes several types of dust collecting equipment and discusses the economic importance of dust removal. In German.

PB L 3481-819. KLUGE, FRIEDRICH. The turbo blower in blast furnace and steel mill operation. (Reprint from Stahl und Eisen, vol. 62, No. 27-29, 1942). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 19). 1942. 16 p. Price: Microfilm-$1.00 - Photostat-$2.00
This article presents a comparison of piston and turbo blowers, discusses air requirements in blast furnaces and steel mills, and describes the design, operation, and control of turbo blowers. Diagrams, graphs and photographs are included. In German.

PB L 3481-820. KLUGE, F. Control of centrifugal compressors. (Reprint from Der Zeitschrift des vereines deutscher ingenieure. vol. 84, No. 44, 1940). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 20). 1940. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00
This article discusses the various control methods for centrifugal compressors with regard to their mode of operation, applicability, and economy. Diagrams and graphs are included. In German.

PB L 3481-821. POLLRICH, PAUL & CO., G.M.B.H. and KASTROP, E. & SOHN, DÜSSELDORF, GERMANY. Ventilators and blowers. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 21). n. d. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00
A brief description of Pollrich blowers, drying apparatus, dust removal equipment, etc. In German.

PB L 3481-822. GILLY, R. Development from the world's first turbo compressor to the present isotherm type. (Manufactured by Brown, Boveri and Cie A. G., Baden, Switzerland). (Supplement to PB 3481). (FIAT Final Rept 489, supp 22). 1943. 10 p. Price: Microfilm-$1.00 - Photostat-$1.00
This article traces the development of turbo compressors at Brown Boveri & Cie. Photographs are included. (One illustration is missing). In German.

PB L 3481-823. SALZMANN, F. Escher Wyss News, vol. 11, No. 3, July-September, 1938. (Supplement to PB 3481). (FIAT Final Rept 489, Supp 23). Sep 1938. 23 p. Price: Microfilm-$1.00 - Photostat-$2.00
This issue contains the following articles: (1) "Steam consumption measurements on recently installed steam turbine plants"; (2) The Rectaflux condensing steam turbine"; (3) "Families of curves for determining stresses in rotating discs by means of conical rings according to the method of Keller; and (4) Some interesting steam turbine deliveries made in 1938. Drawings, photographs, and graphs are included. In English.

PB L 3481-824. WESTFALIA DINNENDAHL GRÖPPEL A. G., BOCHUM, GERMANY. Summary of specialties. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 24). n. d. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00
This leaflet lists the apparatus manufactured by WEDAG, including coal cleaning, ore dressing, crushing, and screening equipment, flotation and filtration apparatus, blowers, etc. In English.

PB L 3481-825. WESTFALIA DINNENDAHL GRÖPPEL A.G., BOCHUM, GERMANY. Ventilators for hot and poisonous gases. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 25). n. d. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated leaflet on WEDAG equipment for conveying and purifying of gases in chemical and metallurgical plants, etc. In German.

PB L 3481-826. WESTFALIA DINNENDAHL GRÖPPEL A. G.M BOCHUM, GERMANY. Suction pipe filters for all industrial purposes. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 26). 1938. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated leaflet on complete dust recovery equipment. In German.

PB L 3481-827. SCHATTSCHNEIDER, M. Turbo blowers in blast furnace plants. (Manufactured by Brown, Boveri and Cie A. G., Mannheim, Germany). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 27). n. d. 29 p. Price: Microfilm-$1.00 - Photostat-$2.00
This publication discusses the heat consumption of piston and turbo blowers and the design, installation, operation, and control of blast furnace turbo blowers. Drawings, and photographs are includes. (Several illustrations are missing). In German.

PB L 3481-828. WESTFALIA DINNENDAHL GRÖPPEL A. G., BOCHUM, GERMANY. Rotex dust separators. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 28). n. d. 11 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated pamphlet on Rotex dust collecting equipment. In German.

PB L 3481-829. PERFORMANCE chart for blowers of 200-1600 mm. suction diameter. (Supplement to PB 3481). (FIAT Final Rept 489, Supp. 29). Aug 1943. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 2481-830. KÜHNLE, KOPP and KAUSCH A. G. "Schicht" forced-draft blowers. (Supplement to PB 3481). (FIAT Final Rept 489, supp. 30). n. d. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated leaflet on blowers for boiler installations. One illustration is missing. In German.

PB L 3481-831. GUTEHOFFNUNGSHÜTTE OBERHAUSEN A. G., OBERHAUSEN, GERMANY. Turbo compressor and blower installations with steam turbines and condensation systems, with back pressure steam turbines, and with electric drives. (FIAT Final Rept 489, supp. 31). n. d. 35 p. Price: Microfilm-$1.00 - Photostat-$3.00
An illustrated pamphlet on GHH equipment and controls. Several illustrations are missing. In German.

PB L 3481-832. VOSKA, A. Turbo-pumps for various purposes. (Manufactured by Escher Wyss Engineering Works, Ltd., Zurich, Switzerland). (Supplement to PB 3481). (FIAT Final Rept 489, supp. 32). n. d. 16 p. Price: Microfilm-$1.00 - Photostat-$2.00
This publication describes Escher-Wyss cooling water, condensate, boiler feed, and vertical storage pumps, impellers for storage pumps, water supply plants, and irrigation equipment. Photographs are included. In English.

PB L 3481-833. VOITH, J. M. ENGINEERING WORKS, HEIDENHEIM, GERMANY. Water turbines for small power plants. (Pamphlet No. 617e). (FIAT Final Rept 489, supp. 33). Jan 1934. 60 p. Price: Microfilm-$2.00 - Photostat-$4.00
This pamphlet contains sections on: (1) The utilization of water power; (2) various types of hydraulic turbines; (3) typical installations of small hydro electric plants; (4) power tables and instructions for their use, etc. Drawings and photographs are included. In English.

PB L 3481-834. BOITH, J. M. MASCHINENFABRIKEN, HEIDENHEIM, GERMANY. Hydraulic turbines for hydroelectric units. (FIAT Final Rept 489, supp. 34). Aug 1930. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated pamphlet describing vertical-shaft sperial turbines installed at power plants in Korea, Mexico, Ireland etc. In German.

PB L 3481-835. VOITH, J. M. ENGINEERING WORKS, HEIDENHEIM, GERMANY. Horizontal Francis spiral turbines with outside gate regulation. (Pamphlet no. 508e). (FIAT Final Rept 489, supp. 35). n. d. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated pamphlet describing the turbines and components. In English.

PB L 3481-836. VOITH, J. M. ENGINEERING WORKS, HEIDENHEIM, GERMANY. Self-acting storage- and discharge weirs, system Voith. (Pamphlet 535e). (FIAT Final Rept 489, supp. 36). n. d. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00
An illustrated pamphlet.

PB L 3481-837. VOITH, J. M. MASCHINENFABRIKEN, HEIDENHEIM, GERMANY. Large free-jet turbines. (Druckschrift nr. 556). (FIAT Final Rept 489, supp. 37). n. d. 36 p. Price: Microfilm-$1.00 - Photostat-$3.00
An illustrated pamphlet describing Boith free jet hydraulic turbines and installations in Norway, Korea, and Japan. In German.

PB 3481-838. DEMAG, A. G., DUISBURG, GERMANY. "Demag Nachrichten," vol. XVII, Nov., 1943. (FIAT Final Rept 489, supp. 38). Nov 1943. 18 p. Price: Microfilm-$1.00 - Photostat-$2.00
This issue contains articles on: (1) The world's largest floating crane (capacity 350 tons) (2) New type rolling mills for seamless pipes; (3) Compressed air supply and air conditioning for mines; and notes on recent Demag developments. Photographs and drawings are included. In German.

PB L 3481-839. VOITH, J. M., ENGINEERING WORKS, HEIDENHEIM, GERMANY. Twin open flume Francis turbines with horisontal shaft and inside regulation. (Leaflet No. 559e). (FIAT Final Rept 489, Supp. 39). Mar 1931. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00
A descriptive leaflet on Francis inward-flow type hydraulic turbines. Drawings and photographs are included. In English.

PB L 3481-840. VOITH, J. M. ENGINEERING WORKS, HEIDENHEIM, GERMANY. Butterfly valves. (Pamphlet No. 578). (FIAT Final Rept 489, supp. 40). n. d. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00
A descriptive pamphlet with a list of installations in Germany and abroad. Drawings and photographs are included. In English.

PB L 3481-841. VOITH, J. M., HEIDENHEIM, GERMANY. Paper machines. (Pamphlet No. 300e) (FIAT Final Rept 489, supp. 41) Jul 1939. 26 p. Price: Microfilm-$1.00 - Photostat-$2.00
An illustrated pamphlet covering newsprint, fine paper, yankee, wrapping paper, wax paper, kraft, and special paper machines. In English.

Machinery (contd)

PB L 85795. TRUTNOVSKY, KARL. Sealed contact joints in stationary machine parts. (David W. Taylor Model Basin Translation 95). Nov 1941. 14 p. Price: Microfilm-$1.25 - Photostat-$2.00

This study of the nature of contact joints, a translation of an article in the "Verein Deutscher Ingenieure-Zeitschrift, vol. 84, No. 17, Apr. 27, 1940," reveals the general possibilities of attaining complete tightness. The forces acting in a sealed joint can be approximately expressed by a characteristic number, which is also a gage of the relative amounts of material used in the joint. Various influences affecting this characteristic number are discussed. Clamped joints, shaped contact surfaces, gaskets, molded packings, self sealing joints, and the sealing of joints by welding are discussed, and directions are given for designing flanged joints. A bibliography and twenty-seven figures are included.

PB L 86524. U. S. WAR DEPARTMENT. Combined operator's manual, maintenance manual and parts catalog for auger, earth, skid mounted, gasoline engine driven model HDM-6. (Manufactured by Highway Trailer Co. Edgerton, Wis.). (Tech Manual 5-9132). 307 p. Price: Microfilm-$7.00 - Photostat-$31.00

MEDICAL RESEARCH AND PRACTICE, INCLUDING CLINICAL APPLICATION OF DRUGS AND PHARMACEUTICALS

PB M 73650. ERLANGEN, GERMANY UNIVERSITY. A collection of doctors' theses. (FIAT Microfilm Reel C 227, Frames 8573-9532). 1936-1939. 960 f. Price: Microfilm -$6.00 - Enlargement Print-$96.00.

The 67 individual items of this FIAT microfilm reel are listed below. They will be available as enlargement prints. Please give the above PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
8573 - 8586 PB M 73650	Luminescence microscopic investigations on the organs of young rats during the first 8 weeks of life. By Hellmut Auge. 1939. In German.	$1.50
8587 - 8606 PB M 73650	Indications, prognosis and course of abdominal caesarean section. By Kurt Balbach. 1938. In German.	2.00
8607 - 8619 PB M 73650	Occurence of diphteria in Frankfurt/Main during 1929-1935. By Elma Barz. 1937. In German.	1.50
8620 - 8633 PB M 73650	Possibility of influencing the blood sugar level by hormones. By Elisabeth Bauer. 1937. In German.	1.50
8634 - 8644 PB M 73650	Experiments on the utilization of rye bread with consideration of the secretory nitrogen. By Hans Bauer. 1938. In German.	1.50
8645 - 8655 PB M -73650	The question of the frequency of diphteria bacilli carriers in Frankfurt/Main during 1930-1938. By Wilma Bauer. 1939. In German.	1.50
8656 - 8671 PB M 73650	Caries and constitution. By Hans Berekenbrinck. 1938. In German.	2.00
8672 - 8681 PB M 73650	Unusual case of cancer of the intrahepatic bile ducts. By Elfriede Berg. 1939. In German.	1.50
8682 - 8689 PB M 73650	The course of the finer blood vessels in the human pancreas. By Heinz Bets. 1938. In German.	1.50
8690 - 8698 PB M 73650	The germicidal effect of garlic (Allium sativum). By Otto Erich Böcker. 1939. In German.	1.50
8699 - 8711 PB M 73650	Penile cancer and its treatment. By August Briddigkeit. 1936. In German.	1.50
8712 - 8724 PB M 73650	Malignant degeneration of tissue irradiated with x-rays. By Lotte Buschbaum. 1938. In German.	1.50
8725 - 8732 PB M 73650	Utilization of sweet lupine. By Charlotte Butenhoff. 1939. In German.	1.50
8733 - 8743 PB M 73650	Respiration of healthy people during strenuous bodily work. (Examinations with a new type of spiragraph). By Wilhelm Schroeder. 1939 In German.	1.50
8744 - 8754 PB M 73650	Frequency of congenital syphilis. By Wilma Schütte. 1939. In German.	1.50
8755 - 8763 PB M 73650	Possibility of inhibiting the growth of Ehrlich's mouse carcinoma by allyl derivatives, particularly thiosinamine, allylamine and allylmalonic acid. By Felix Seibert. 1938. In German.	1.50
8764 - 8772 PB M 73650	The problem of the energy quotient of prematures. By Rudolf Seufert. 1938. In German.	1.50
8773 - 8786 PB M 73650	Contribution to the knowledge of "diffuse carcinoma of the lungs." By Wolfram Simrock. 1938. In German.	1.50
8787 - 8808 PB M 73650	Clinical experiments on the value of the five agents in Bad Homburg (Clay mud and "Elisabethenbrunnen). By Albert Sell. 1938. In German.	2.50
8809 - 8817 PB M 73650	Bacteriological examination of the dentine of gangrenous teeth. By Liselotte Sommer. 1938. In German.	1.50
8818 - 8827 PB M 73650	Examinations regarding the vitamin-B1 metabolism of pregnant women and puerperae either in good health or affected with polyneuritis. By Erhard Sommerbrodt. 1938. In German.	1.50
8828 - 8839 PB M 73650	The digestion of poorly baked bread. In German.	1.50
8840 - 8860 PB M 73650	Juvenile menorrhagias. By Heinz Steuerwald. 1938. In German.	2.50
8861 - 8875 PB M 73650	Casting experiments with silver-tin alloys on Wipla-crown rings, with consideration of the adhesive and corrosion. By Friedrich Thum. 1938. In German.	1.50
8876 - 8889 PB M 73650	Differentiation of strains of diphteria bacilli.	

By Rudolf Trees. 1937.
In German. 1.50

8890 - 8901 PB M 73650 — Changes of the chemical properties of teeth in experimentally produced scurvy of guinea pigs.
By Alfred Türk. 1938.
In German. 1.50

8902 - 8912 PB M 73650 — Deformations of the iris.
By Vera Uebe. 1938.
In German. 1.50

8913 - 8935 PB M 73650 — Is Whitehead's operation of hemorrhoids still justified?
By Walter Völker. 1938.
In German. 2.50

8936 - 8960 PB M 73650 — The hereditary disposition to acute rheumatic fever in childhood. By Gustav J. Walter.
1938. In German. 2.50

8961 - 8972 PB M 73650 — Contribution to a simplified production of gnathostatic teleroentgenograms of the facial skull.
By Friedrich Weigel. 1938.
In German. 1.50

8973 - 8984 PB M 73650 — Changes in the suprarenal cortex in acute and chronic infectious diseases. By Berta Weimer.
1939. In German. 1.50

8985 - 8992 PB M 73650 — The influence of Vitamin D and ultra-violet rays on the ascorbic acid economy of the human body.
By Walter Weiss. 1939.
In German. 1.50

8993 - 9012 PB M 73650 — The present state of the alcohol problem. By Bernhard Wischert.
1938. In German. 2.00

9013 - 9021 PB M 73650 — The influence of rhythmically intermittent x-ray irradiation on biological objects (embryos of Vicia faba equina).
By Peter Zacharias. 1937.
In German. 1.50

9022 - 9037 PB M 73650 — Ophthalmologic indication for the interruption of pregnancy.
By Sylvia Zeller. 1938.
In German. 2.00

9038 - 9052 PB M 73650 — Congenital dislocation of the patella and the technique of its treatment.
By Otto Heinrich Zilles.
1938. In German. 1.50

9053 - 9074 PB M 73650 — Clinical examination of kins people suffering from pernicious anemia.
By Rudolf Zimmerling. 1938.
In German. 2.50

9075 - 9096 PB M 73650 — Value of bringing up premature babies weighing between 1700 and 2500 gr. at birth, especially their mental development and their fate. By Hans Joachim v. Canstein.
1938. In German. 2.50

9097 - 9109 PB M 73650 — Problem of sterility of chamomile preparations. By Paul Dalichow.
1939. In German. 1.50

9110 - 9125 PB M 73650 — Injuries caused by the entrance of compressed air into the gastro-intestinal tract.
By Bodo Degenhardt. 1938.
In German. 2.00

9126 - 9138 PB M 73650 — The problem of the chemotherapeutic effect of d-camphor on the experimental pneumococcal infections of white mice. By Wilhelm Dietrich.
1938. In German. 1.50

9139 - 9151 PB M 73650 — A case of cured dissecting aneurysm of the aorta.
By Hugo Dill. 1939.
In German. 1.50

9152 - 9167 PB M 73650 — On the knowledge of large-nodule tuberculosis of the liver.
By Josef Dill. 1938.
In German. 2.00

9168 - 9179 PB M 73650 — Reabsorption from the abdominal cavity. (Experiments with pigeon blood on rabbits).
By Wilhelm L. Doll. In German. 1.50

9180 - 9191 PB M 73650 — This is a duplicate of frames 9168 - 9179.

9192 - 9202 PB M 73650 — Congenital dislocations of the shoulder. (Report of 2 cases).
By Bernhard Drescher. 1938.
In German. 1.50

9203 - 9218 PB M 73650 — Action of tobacco on the human organism, especially on female workers of tobacco factories.
By Alois Emmerich. 1938.
In German. 2.00

9219 - 9232 PB M 73650 — Investigations into regional differences of the blood pattern.
By August Emmerich. 1938.
In German. 1.50

9233 - 9250 PB M 73650 — The physico-thermal behavior of Homburg therapeutic clay, as compared with Eifel-Fango and Jura-Fango. By Rudolf Heinrich Emmerich.
1938. In German. 2.00

9251 - 9262 PB M 73650 — Investigations on the biological causes of the self-heating of sewerage sludge. By Gerhard Eufinger.
1938. In German. 1.50

9263 - 9275 PB M 73650 — Influence of vitamin B_1 deficiency on teeth. By Rudolf Ferdinand.
1939. In German. 1.50

9276 - 9286 PB M 73650 — The changes of ultra-filterable iron in blood, caused by iron drinking cures. By Albert Frech..
1938. In German. 1.50

9287 - 9300 PB M 73650 — Extensive cerebral changes in new-borns and infants resulting from birth injuries.
By Gerhard Fromme. 1937.
In German. 1.50

9301 - 9311 PB M 73650 — Bacteriology of ice-cream.
By Reinhard Fuchs. 1938.
In German. 1.50

9312 - 9322 PB M 73650 — Formation of pseudarthrosis after fracture of the internal malleolus. By Walter Fuckel.
1939. In German. 1.50

9323 - 9352 PB M 73650 — Capillary pressure of normal persons and its relations determined by functional tests. Capillary pressure in hypertension.
By Walter Gefe. 1938.
In German. 3.00

9353 - 9364 PB M 73650 — Regional differences of the normal white blood count.
By August Geuss. 1938.
In German. 1.50

9365 - 9377 PB M 73650 — Comparative experiments on the influence of the angle of position of centrifuge tubes on the results of centrifuging.
By August Goebel. 1939.
In German. 1.50

751194 O—48——6—36

9378 - 9385 PB M 73650 Syphilis test in a drop of blood according to Chadik-Dahr. By Maria Grahner. 1938. In German. 1.50

9386 - 9406 PB M 73650 Some cases of myelogenous leukemia and aleukia hemorrhagica with unusual course. By Viktor Graser. 1938. In German. 2.50

9407 - 9421 PB M 73650 Polyposis of large intestine and rectum. By Kurt Grosel. 1938. In German. 1.50

9422 - 9437 PB M 73650 After-effects of splenectomy. By Alwin Grosser. 1937. In German. 2.00

9438 - 9465 PB M 73650 Contribution to the knowledge of multilocular cystoma of the liver. By Willi Grunewald. 1938. In German. 3.00

9466 - 9477 PB M 73650 Contribution to the evaluation of the duration of immunity in man after cowpox vaccination. By Fred Habel. 1938. In German. 1.50
Tests on 1540 soldiers of the air force.

9478 - 9493 PB M 73650 Serological diagnosis of tuberculosis, with special regard to the recognition of active tuberculosis. By Ludwig Hardt. 1939. In German. 2.00

9494 - 9515 PB M 73650 Investigations on the effect of centrifuging on acid-fast bacteria under various conditions. By Friedrich Hartling. 1938. In German. 2.50

9516 - 9527 PB M 73650 Radium treatment of spongiform hemangiomas. By Marianne Hartmann. 1938. In German. 1.50

9528 - 9532 9533 - 9540 PB M 73650 Utilization of uncooked starch. By Lothar Hauer. 1938. In German. 1.50

PB M 70048. ERLANGEN, GERMANY, UNIVERSITY. A collection of doctors' theses. (FIAT Microfilm Reel G-240, Frames 1262-2284) 1937-1940. 1022 f. Price: Microfilm-$6.00 - Enlargement print-$102.50.
The 59 individual items of this FIAT microfilm reel are listed below and will be available as enlargement prints. Please give the above PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
1262-1273 PB M 70048	Accident and Schlatter's disease. By P. Schulte. 1940. In German.	$1.50
1274-1282 PB M 70048	The pancreas and the sexual cycle of pigeons. By H. Schulz. 1940. In German.	1.50
1283-1297 PB M 70048	Translation and interpretation of the "Essay d'Odontotechnic" or "Dissertation sur les dents artificielles" by Claude Monton, Paris, 1746, chapters II and III. By G. Schumacher. 1940. In German.	1.50
1298-1316 PB M 70048	Late results of treatments of patellar fractures with circular wire suturing. By K. Schlussmann. 1939. In German.	2.00
1317-1331 PB M 70048	Formation of fat from protein. By A. Schwalb. 1939. In German.	1.50
1332-1342 PB M 70048	Occurrence of skin changes similar to the border zone in abrasions, at the site of bullet exits and pseudo-exits. By S. Schwarz. 1940. In German.	1.50
1343-1391 PB M 70048	Predictability of the result in cases of homicide due to negligence. By E. Schweikert. 1940. In German.	5.00
1392-1414 PB M 70048	Isolated fracture of the sacrum and its cure. By E. Schwemmlein. 1939. In German.	2.50
1415-1423 PB M 70048	The relationship between fatal incarcerated hernia and accident. By A. Seidl. 1940. In German. A case of intestinal obstruction as a result of fecal accumulation in the hernial sac, following a traffic accident.	1.50
1424-1444 PB M 70048	Galen : On the pulse for beginners. By J. Semmler. 1939. In German. Change of pulse as a result of internal and external causes. Contribution to the history of the knowledge of the pulse.	2.50
1445-1457 PB M 70048	Changes in the blood pattern in cases of polyarthritis, with special regard to anaemias. By A. Sepp. 1940. In German.	1.50
1458-1484 PB M 70048	Contribution to the physical investigation of thermoplastic impression materials and their practical evaluation. By H. Sigrist. 1939. In German.	3.00
1485-1502 PB M 70048	Site and occurrence of intraocular tumours. By A. Sollmann. 1940. In German.	2.00
1503-1508 PB M 70048	Is a disturbance of the lipoid metabolism pathognomonic for malignant tumors? By E. Sommer. 1939. In German.	1.50
1509-1518 PB M 70048	Cataract in myotonic dystrophy. By W. Spech. 1940. In German.	1.50
1519-1530 PB M 70048	Dependence of additional dispersion irradiation on the length of the pendulum as measured at the surface. By H. Spengler. 1940. In German.	1.50
1531-1540 PB M 70048	Practical therapeutic measurements with the dummy method regarding the decrease in intensity of X-ray irradiation in small areas. By P. Spengruber. 1939. In German.	1.50
1541-1559 PB M 70049	Determination of lactic acid, blood sugar, acetone and β-hydroxy-butyric acid in allergic diseases. By R. Spieler. 1940. In German.	2.00
1560-1583 PB M 70048	A case of criminalistic interest : Attempted murder-with-robbery and suicide of the culprit by means of three pistol shots into the head. By W. Spoerl. 1940. In German.	1.50
1584-1591 PB M 70049	The problem of the indication for interruption of pregnancy in Munich as influenced by the law	

of October 1, 1933. By Stadler-Bondick. 1940. In German. 1.50

1592-1604 PB M 70048 — A case of microspondylia. By J. Stegmaier. 1940. In German. 1.50
Contribution to the problem of platyspondylisis.

1605-1618 PB M 70048 — Pulsating exophthalmus. By Steible. 1940. In German. 1.50

1619-1659 PB M 70048 — Nature, recognition, extent and correction of the physical causes of sterility in marriage. By H. G. Steigerthal. 1939. In German. 4.50

1660-1671 PB M 70048 — The effect of ultraviolet rays and short waves on the vitamin C-content of various biological fluids. By H. Steinbach. 1939. In German. 1.50

1686-1704 PB M 70048 — The importance of the position of the patient in X-ray diagnosis of acute abdominal diseases. By H. Stenger. 1939. In German. 2.00

1672-1685 PB M 70048 — Crime in the concept of psychoanalysis. By A. Stenzle. 1940. In German. 1.50

1705-1710 PB M 70048 — Failure of resection of the deferent canal for sterilization. By K. Stöckl. 1939. In German. 1.50

1711-1720 PB M 70048 — Cystic tumor in the orbit after shell splinter injury. By H. Stoll. 1940. In German. 1.50

1721-1733 PB M 70048 — Origin and treatment of traumatic myositis ossificans. By K. Stoytscheff. 1940. In German. 1.50

1734-1744 PB M 70048 — Malaria therapy of syphilis. By H. Strobel. 1940. In German. 1.50

1745-1773 PB M 70048 — Statistics of anaemia for the period 1934-1939, based on the cases of the 2nd Medical Hospital at Munich. By O. Stuhrmann. 1940. In German. 3.00

1774-1783 PB M 70048 — Galen's treatise on the virtues of food-stuffs. By L. Sturm. 1939. In German. 1.50

1784-1795 PB M 70048 — The so-called "proteic acids" in urine. By K. Sudendorf. 1940. In German. 1.50

1796-1813 PB M 70048 — Treatment of scarlet fever and of its complications, as described in Plenciz's "de scarlatina", in comparison with to-day's treatment. By H. Thoma. 1940. In German. 2.00

1814-1842 PB M 70048 — Texts relating to the history of blood diseases. By H. Thoma. 1940. In German. 3.00

1843-1856 PB M 70048 — The so-called "hypertrophic tuberculosis of the appendix." By Tjin Fa Deder. 1940. In German. 1.50

1857-1871 PB M 70048 — Cancer of the male mammary gland. By G. K. Umhau. 1940. In German. 1.50

1872-1887 PB M 70048 — Galen : On the virtues of food-stuffs. By G. Unmann. 1939. In German. 2.00

1888-1905 PB M 70048 — The symptomatology of uraemia. By H. Urbanger. 1947. In German. 2.00

1906-1943 PB M 70048 — Symptomatology and hereditary course of tuberous sclerosis. By J. Vass. 1940. In German. 4.00

1944-1972 PB M 70048 — Indication, results, methods and legal problems of artificial insemination. By S. Veil. 1940. In German. 3.00

1973-1982 PB M 70048 — Examinations on thyreotoricosis in Bavaria. By H. Velte. 1939. In German. 1.50

1983-2020 PB M 70048 — The sex and age distribution of chronic gastric and duodenal ulcers. n.d. In German. 4.00

2021-2028 PB M 70048 — Treatment of crural fractures and its results. By H. Vietze. 1940. In German. 1.50

2029-2032 PB M 70048 — The complex compound ferrous iron-adrenaline. By G. Vogeler. 1940. In German. 1.50

2033-2045 PB M 70048 — A case of bilateral primary ovarian carcinoma during pregnancy. By W. Voit. 1940. In German. 1.50

2046-2059 PB M 70048 — Retrodactyly without typical "Strahldefekt". By F. J. Volkmsfeld. 1939. In German. 1.50

2060-2068 PB M 70048 — Hypertrophic scars and keloids, and their treatment. By R. v. Scheidt. 1940. In German. 1.50

2069-2076 PB M 70048 — Therapeutic value of the most important anticoagulants. By H. Vosshuhl. 1939. In German. 1.50

2077-2091 PB M 70048 — A case of sudden death by intrusion of compressed air into the natural openings of the body. By R. Wachsmann. 1930. In German. 1.50

2092-2101 PB M 70048 — Summary of recent results of investigation on the biochemical causes of malignant tumors. By F. Wächter. 1940. In German. 1.50

2102-2135 PB M 70048 — Contribution to the knowledge of Constantinus Africanus, especially on his translation of Ali Abba's Book of Kings. W. Wagner. 1940. In German. 3.50

2136-2150 PB M 70048 — Contribution to the etiology of facialis paresis. By R. Waller. 1940. In German. 1.50

2151-2160 PB M 70048 — Excellent public health service at Regensburg in the model settlement "Schottenheim."

By H. Wartner. 1940. In German. 3.00

2181-2212 PB M 70048 Ritter von Hitertz, a German physician and writer of the baroque period. By J. Wastl. 1940. In German. 3.50

2213-2228 PB M 70048 Tracheal stenosis caused by goiter. By Br. Weber. 1940. In German. 2.00

2229-2238 PB M 70048 Treatment of tuberculous cervical lymph-glands. By H. Weber. 1938. In German. 1.50

2239-2252 PB M 70048 Dependence of the effect of additional dispersion irradiation by the pendulum method on the dimensions of various parts of the body. By M. Weber. 1940. In German. Surface measurements. 1.50

2253-2284 PB M 70048 Development of chronic infirmity with fatal outcome after initially successful operation in a case of abdominal stabbing. By M. Weber. 1940. In German. 3.50

METALS AND METAL PRODUCTS

PB L 85894. BARRE, RUDOLF. Buckling stresses of rectangular plates with longitudinal stiffeners under uniform compression. (David W. Taylor Model Basin Translation 78). Jul 1943. 17 p. Price: Microfilm-$1.25-Photostat-$2.00

The present paper deals with the dimensions of longitudinal stiffeners required to reinforce a flat plate so that it will develop the maximum buckling strength of the plating. This problem had previously been studied by Timoshenko. He applied the energy method and obtained approximate solutions for the cases of plates which are simply supported at the edges and reinforced by one or more longitudinal stiffeners when under uniform compressive stresses parallel to the direction of the longitudinals. He also gave a solution for reinforced plates under shear. In the present paper the author gives a more rigorous solution for the case of identical stiffeners equally spaced. He carries the solution to a practical form for two cases only, namely, one longitudinal stiffener and two longitudinal stiffeners. A numerical example is worked out which illustrates the case of a single longitudinal stiffener. The result of the calculation checks accurately with that obtained from the tables developed by Timoshenko. The paper brings out the point that the required rigidity of a single longitudinal stiffener is very much less for a plate with clamped longitudinal edges than for one with simply supported longitudinal edges. It further indicates that in either case, the required moment of inertia of one or two longitudinal stiffeners is considerably less than that calculated by the simple column formula even though the entire width of plating and the number of longitudinal stiffeners are increased, the results obtained by calculations according to the present theory and those obtained by simple column theory come into closer agreement. Translated by M. C. Roemer from an article in Der Bauingenieur, June 1936.

PB L 85919. BOLLENRATH, F. and CORNELIUS, H. The effect of rest periods on the time and fatigue strengths of metallic materials. (David W. Taylor Model Basin Translation 104). Oct 1942. 16 p. Price: Microfilm-$1.25 - Photostat-$2.00

The effect of interrupted loading on a variety of pure metals and alloys was studied in fatigue tests of tensile specimens subjected to a range of stress varying from a small tensile stress to a larger tensile stress. These metals and alloys represented a wide range of lattice structures, grain textures, and strength characteristics. The pulsating stress was zero during the rest periods. The test range covered both time strength and endurance strength. From these numerous tests it is concluded that periods of rest do not in general affect the S-N curve. Translated by F. A. Raven from an article in VDI-Zeitschrift, May 1940.

PB L 85768. BROCKLEHURST, ROBERT E. A method of spectrographic analysis for beryllium in magnesium alloys. (AAF AMC Rept TSEAM-M5305, Add.1; AAF Tech Rept 5628) Aug 1947. 7 p. Price: Microfilm-$1.00 Photostat-$1.00.

Since conventional chemical analyses of beryllium in magnesium alloys containing aluminum are very difficult, it was decided to use a spectrographic analytical method which makes use of solution samples. This method used as standards a series of carefully prepared magnesium alloy solutions to which different amounts of beryllium were added. Samples of the materials to be analyzed were prepared as solutions with the same concentration of the basic alloy as the concentration of the standard solutions. Development of the method included investigation of several factors which produce nonuniform specimens when the spectrographic electrodes are prepared. In the method established these factors are controlled by careful preparation of the electrode surface and by accurately controlled drying of the electrode after the solution is placed on the surface. Controlled spectrographic spark source conditions and the use of controlled dark room conditions completed the requirements for obtaining reproducible analyses. Sixty-one magnesium alloy samples were analyzed by the developed method for beryllium contents in the range 0.001 to 0.1 percent. Below 0.025 percent the average deviation from the mean of repeated determinations was 4.6 percent of the amount present.

PB L 81146. GLEYZAL, A. N. Plastic deformation and energy absorption of a thin rectangular plate under hydrostatic pressure. (David W. Taylor Model Basin Rept R-280) Jan 1945. 18 p. Price: Microfilm-$1.25 - Photostat-$2.00

On the basis of two assumptions, one concerning the shape of thin, clamped, circular or rectangular plates under pressure, and the other concerning the invariant character of the curve of energy absorption against areal strain of thin plates, it is shown that the central deflections of two plates of the same material and the pressures which produce these deflections are related to each other by simple algebraic equations involving their corresponding physical dimensions. Thus any one thin, clamped, circular or rectangular plate serves as a model for predicting pressure and deflection for any other such plate of the same material. By use of measured tensile stresses the equations are made to include plates of different materials. Experimental pressure-deflection data are used to check this theory. Good agreement is obtained. As a theoretical check the theory is applied to membranes so that one circular or rectangular membrane is used as a model for another. The result is in good agreement with exact membrane theory. A simple algebraic formula for pressure against deflection for membranes is derived for rectangular membranes, which is found to agree well with results of exact membrane theory. By use of a concept of "average tension" this formula also has validity when applied to bulged thin clamped plates.

PB L 82050. KAISER WILHELM INSTITUT FÜR EISENFORSCHUNG, DÜSSELDORF, GERMANY. Iron and steel research. (FIAT Microfilm Reel X-87, Frames 5609-6214). 1941-1945. 606 f. Price: Microfilm-$7.00 - Enlargement Print-$62.00

This reel consists of 67 reports. Individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $7.00. Please include PB and frame numbers when ordering individual items. In German.

Frames.	Title	Price
5609 - 5611 PB L 82050.	The behavior of nitrogen in an acid and basic small converter with lateral air supply. By Karl Daeves and Werner Holtmann. 1944. In German.	$2.00
5612 - 5621 PB L 82050	Influence of diffusion annealing on the strength properties of structural steels. By Helmut Krainer and Karl Swoboda. 1944. In German.	2.00
5622 - 5633 PB L 82050	1943 activity report of the "Verein Deutscher Eisen-hüttenleute, Düsseldorf". 1944. In German.	3.00
5634 - 5641 PB L 82050	Titanium as a steel alloying element. By Adolf Fry. 1944. In German.	2.00
5642 - 5645 PB L 82050	Steels for torsion springs. By Helmut Krainer and Hans Wittig. 1944. In German.	2.00
5646 - 5647 PB L 82050	Method for the manufacture of high-quality steel (MA-steel). By Gerhard Naeser. 1944. In German.	2.00
5647 - 5648 PB L 82050	Production of a hot-blasted steel low in nitrogen. By Walter Bading. 1944. In German.	2.00
5649 - 5662 PB L 82050	Characteristics of the German "Siemens-Martin" furnaces. By Kurt Guthmann. 1944. In German.	3.00
5663 - 5665 PB L 82050	Manufacture of high-quality steel by means of the "slag mixture process". By Edward Herzog. 1944. In German.	2.00
5666 - 5670 PB L 82050	Case hardened tempered, and spring steels of the "HPN" type. By Warner Hollmann and Karl Daeves. 1944. In German.	2.00
5671 - 5675 PB L 82050	The "Duplex" method "small Bessemer plant - arc furnaces" for increased production of electric steel casting. By Erwin Holweg. 1944. In German.	2.00
5676 - 5678 PB L 82050	The effect of the converter shape on the nitrogen contents in steel. By Theoder Kootz. 1944. In German.	2.00
5679 - 5682 PB L 82050	Malleablizing in a flow of gas. By Fritz Schulte. 1944. In German.	2.00
5683 - 5684 PB L 82050	Effect of special nitrides on steel exposed to heat. By Franz Rapetz and others. 1944. In German.	2.00
5685 - 5696 PB L 82050	Steel and pressing defects in the manufacture of projectiles and their elimination. By Walter Grosse. 1944. In German.	2.00
5697 - 5699 PB L 82050	Roller bearing made of cast iron By Otto Rüding. 1944. In German.	2.00
5700 - 5703 PB L 82050	The deoxidizing and desulfurizing slag reaction process. By Otto Krifka and Franz Rapatz. 1944. In German.	2.00
5704 - 5708 PB L 82050	Dead Thomas steel with good malleability. By Hubert Hautmann. 1944. In German.	2.00
5709 - 5713 PB L 82050	Hot pressed high-explosive AA shells 8.8— 12.8 cm) made of Thomas steel with a carbon content of 0.25 - 0.35%. By Heinz Wübbenhorst. 1944. In German.	2.00
5714 - 5718 PB L 82050	The development of wire - drawing lubricants during the war. By Willi Heidenhain. 1944. In German.	2.00
5719 - 5726 PB L 82050	Manganese deposits in central and Southeastern Europe. By Helmut Schiele. 1944. In German.	2.00
5727 - 5734 PB L 82050	Investigation on improved durability of Thomas converter bottoms. By Edward Herzog and Gerhard Naeser. 1944. In German.	2.00
5735 - 5741 PB L 82050	Development of hot-working steels low in scarce materials for the manufacture of projectiles. By Frans Bleilbb. 1944. In German.	2.00
5742 - 5754 PB L 82050	1944 activity report of the "Verein Dentscher Eisenhuttenlente Düsseldorf". In German.	3.00
5755 - 5767 PB L 82050	Statistical Data on the use of manganese in steel production. In German.	3.00
5768 - 5794 PB L 82050	Development of "HPN" steels. By Karl Daeves, and others. 1942. In German.	4.00
5795 - 5806 PB L 82050	Manufacturing methods and experiences obtained during the manufacture of "HPN" steels. By W. Bertram and J. Walter. 1942. In German.	3.00
5807 - 5823 PB L 82050	Mechanical properties of "HPN" steels particularly under rigid stress-test conditions. By E. Schrader. 1942. In German.	3.00
5824 - 5836 PB L 82050	Metallurgical basis for the production of "HPN" steel. By W. Eichholz and Th. Kootz. 1942. In German.	3.00
5837 - 5851 PB L 82050	Nitrogen in liquid steel. By Th. Kootz. 1942. In German.	3.00
5852 - 5868 PB L 82050	Measures for saving ferromanganese in basic steel production. By "August Thyssen Hutte, Duisburg-Hamborn." 1942. In German.	3.00
5869 - 5881 PB L 82050	Converting of phosphorous Spiegeleisen. By Walter Bading. 1942. In German.	3.00
5882 - 5886 PB L 82050	Spray method for the continous maintenance of mixers. By Osann. 1944. In German.	2.00
5887 - 5893 PB L 82050	Deoxidizing with pitchstone. By P. E. Hardt. 1943. In German.	2.00
5894 - 5898 PB L 82050	Mixer with lining made of fire bricks. By Rudolt Graet. 1944. In German.	2.00
5899 - 5907 PB L 82050	Tests on pre-melting scrap in the cupola furnace for the "Siemens-Martin" steel mill. By "Neun Kirchner Eisenwerk A G, Neunkirchen (Saar). 1942. In German.	2.00
5908 - 5911 PB L 82050	Remelting of scrap in the cupola furnace. By Harr. 1943. In German.	2.00
5912 - 5931 PB L 82050	Pre-melting in the cupola furnace for increased output in the	

"Siemens- Martin" furnace. By Ernst Blume. 1944. In German. 3.00

5932 PB L 82050 Melting at scrap in the cupula furnace. By K. Mittank. 1944. In German. 2.00

5933 - 5958 PB L 82050 Continuation of frames 5671 - 5675. Lecture. By E. Holweg. 1944. In German. 4.00

5959 - 5964 PB L 82050 The electric-steel mixing process. By H.V. Köckritz. 1944. In German. 2.00

5965 - 5969 PB L 82050 Mixer steel consisting of electric steel and "Siemens-Martin" steel. By K. Hofmann. 1944. In German. 2.00

5970 - 5972 PB L 82050 Experiences with mixer melts. By P.K. Buchholz. 1944. In German. 2.00

5973 - 5975 PB L 82050 The electric steel mixing process. By E. Pakulla. 1944. In German. 2.00

5976 - 5980 PB L 82050 Method for increasing the output of arc furnaces. By Max Petz. 1944. In German. 2.00

5981 - 5988 PB L 82050 Semi-duplex process and mixing method. By Sencsek and Rinesch. 1944. In German. 2.00

5989 - 5992 PB L 82050 Manufacture of steel low in oxygen, sulfur and gas. By Max Paschke. 1942. In German. 2.00

5993 - 6011 PB L 82050 Investigation of the frothing of melts during the melting-down period. By Robert Weilffert. 1941. In German. 3.00

6012 - 6019 PB L 82050 Pitch carburization of gas for melting in "Siemens-Martin" furnace using coal-tar pitch. 1941. In German. 2.00

6020 - 6030 PB L 82050 Determination of standard values for 40-80 "Siemens-Martin" furnaces for a normal scrap-pig iron process and generator gas firing. 1942. In German. 3.00

6031 - 6038 PB L 82050 Method for increasing the output of "Siemens-Martin" furnaces. By "Maerz Ofenbau G.m.b.H., München". 1943. In German. 2.00

6039 - 6090 PB L 82050 Test results with an additional heating chamber for a "Siemens-Martin" furnace. 1943 - 1944. In German. 7.00

6091 - 6094 PB L 82050 Data water- consumption in metallurgical plants. By K. Guthmann. n.d. In German. 2.00

6095 - 6100 PB L 82050 Carburizing of "Siemens-Martin" furnaces with coal dust. By P.A. Baare and others. n.d. In German. 2.00

6101 - 6114 PB L 82050 Coal dust carburization and firing of "Siemens - Martin" furnaces. 1945. In German. 3.00

6115 - 6132 PB L 82050 Increased out put of "Siemens - Martin" furnaces fired with generator gas. By P. A. Baare and K. Pettweis. 1946. In German. 3.00

6133 - 6138 PB L 82050 Fe Mn consumption in the manufacture of manganese steels. 1941. In German. 2.00

Conference report of various metallurgical committees. 1942.

6139 - 6141 PB L 82050 Recovery of chromium in the basic "Siemens - Martin" and arc furnaces. By Fr. Badenheuer. In German. 2.00

6141 - 6143 PB L 82050 Direct reduction of Vanadium oxide or vanadium slag in the basic arc furnace. By Harr, and others. In German. 2.00

6143 - 6144 PB L 82050 Standardization of fire brick. By Aikistow. In German. 2.00

6145 - 6147 PB L 82050 Reduction of vanadic acid. By Fr. Domalsky. In German. 2.00

6148 - 6150 PB L 82050 Test for processing vanadic acid in the arc furnace. By A. Harr. In German. 2.00

6151 - 6153 PB L 82050 Reduction of vanadic oxides in the basic arc furnace. By H. Müller. In German. 2.00

6154 - 6156 PB L 82050 Tests with molten vanadic acid. By Pakulla. In German. 2.00

6157 - 6173 PB L 82050 Problem of saving coal and increasing the output of "Siemens-Martin" furnaces. By G. Neumann 1942. In German. 3.00

6174 - 6182 PB L 82050 Calculations for "Siemens - Martin" furnaces. By G. Neumann. 1943. In German. 2.00

6183 - 6214 PB L 82050 Comparison of upper-Silesian "Siemens-Martin" furnaces. 1943. In German. 4.00

PB L 82016. KAISER WILHELM INSTITUT FÜR EISENFORSCHUNG, DÜSSELDORF, GERMANY. Manufacture of steel wire and bearings, steel analysis, furnace operations, etc.
(FIAT Microfilm Reel L-86, Frames 5021-5608) 1938-1944. 588 f. Price: Microfilm-$7.00 - Enlargement print-$60.00.
This reel contains 76 research reports, conference minutes, file notes, etc. Individual items are listed below and will be available as enlargement prints only. The entire reel may be purchased in a microfilm form for $7.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
5021-5025 PB L 82016	Analysis of silicic acid and alumina by means of the chlorine process. By Klinger. 1941. In German.	$2.00
5026-5036 PB L 82016	Electrolytic measurement of non-metallic inclusions in steel. Determining of silicic acid, alumina, manganese oxide, iron sulfide, and manganese sulfide. By Klinger. 1941. In German.	3.00
5037-5050 PB L 82016	Salt patenting of steel wire. By E. Yamichem. n.d. In German.	3.00
5051-5056 PB L 82016	Stresses, bends, and torsion of cable wires manufactured by salt patenting. 1942. In German. Conference report.	2.00
5057-5113 PB L 82016	Increase in drawing speed. 1941. In German. Conference report.	7.00
5114-5128 PB L 82016	Installation of a standard polishing unit for wire-drawing dies. 1942. In German.	3.00
5129-5132 PB L 82016	Increased drawing speed. n.d. In German.	2.00

5133-5136 PB L 82016 — Directions for drawing tests with Thomas iron. n.d. In German. 2.00

5137-5143 PB L 82016 — Wire drawing dies. 1942. In German. Conference report. 2.00

5144-5147 PB L 82016 — Drawing test with wire-drawing dies containing titanium carbide. 1942. In German. 2.00

5148-5159 PB L 82016 — Various patenting furnaces and patenting investigations. 1942. In German. Conference report. 3.00

5160-5179 PB L 82016 — Patenting of steel wires. By Puckler. 1941. In German. 3.00

5180-5206 PB L 82016 — Patenting and patenting furnaces. 1942. In German. Conference reports. 4.00

5207-5218 PB L 82016 — Salt patenting in the manufacture of high-quality steel wire. By Hans Wistl. 1943. In German. 3.00

5219-5225 PB L 82016 — Salt bath installations. 1944. In German. Conference reports. 2.00

5226-5241 PB L 82016 — Drawing with backward pull. By Werner Lueg. n.d. In German. 3.00

5242-5262 PB L 82016 — Proper polishing of hard metal wire-drawing dies. By Walter Trumit. 1943. In German. 4.00

5263-5279 PB L 82016 — Increasing the drawing speed. 1941. In German. Conference reports. 3.00

5280-5285 PB L 82016 — Piece work rate and wages according to work efficiency. By Hugo Kaessberg. n.d. In German. 2.00

5286-5291 PB L 82016 — Cable wire research. 1938. In German. Conference report. 2.00

5292-5316 PB L 82016 — Tests concerned with doubling of boiler sheets. 1941. In German. 4.00

5317-5330 PB L 82016 — Output capacity problems in German steel mills. By Fritz Wesemann. 1939. In German. 2.00

5321-5327 PB L 82016 — Use of substitute materials in bearings of cranes and loading installations. n.d. In German. 2.00

5328-5339 PB L 82016 — 1939 activity report of the "Verein deutscher Eisenhüttenleute, Düsseldorf". 1940. In German. 3.00

5340-5344 PB L 82016 — Small-sized coke gasification for firing of coke furnaces. By Edward Senfter. 1940. In German. 2.00

5345-5347 PB L 82016 — Determining nitrogen in combination with alloyed and unalloyed steels. By Hubert Kempf and Karl Abresch. 1940. In German. 2.00

5348-5354 PB L 82016 — Development from the electro-steel arc furnace to the large-scale furnace. By Walter Rohland. 1940. In German. 2.00

5355-5356 PB L 82016 — Use of resin roller bearings for sheet-rolling operations. 1940. In German. 2.00

5357-5360 PB L 82016 — Duties of the metallurgist in the field of material research during the war. By Hermann Schulz. 1940. In German. 2.00

5361-5362 PB L 82016 — Use and processing of Thomas steel for the construction of railroad cars. By Hubert Hauttmann. 1940. In German. 2.00

5363-5364 PB L 82016 — Thomas steel and Siemens-Martin steel used for steel constructions. By Karl Schönrock. 1940. In German. 2.00

5365-5367 PB L 82016 — Use of Thomas steel and Siemens-Martin steel for machinery construction. By Karl Schönrock. 1940. In German. 2.00

5368-5369 PB L 82016 — Use of Thomas steel for the construction of steam boilers, apparatus, and pipe lines. By Herbert Buchholtz. 1940. In German. 2.00

5370-5374 PB L 82016 — Use of Thomas steel for machinery construction. 1940. In German. 2.00

5375-5376 PB L 82016 — Thomas steel in the steel and sheet metal industry. By Hubert Hoff. 1940. In German. 2.00

5377-5395 PB L 82016 — Heat saving proposals for industrial furnaces fired by gas. 1940. In German. 3.00

5396-5399 PB L 82016 — Tests with chromium-magnesite bricks low in chromium and temperature resistant magnesite bricks in the basic Siemens - Martin furnace. 1941. In German. 2.00

5400-5403 PB L 82016 — Measurements, operating conditions and output of ore furnaces with a capacity of 6-30 tons. By Hubert Kral. 1941. In German. 2.00

5404-5416 PB L 82016 — 1940 activity report of the "Verein deutscher Hüttenleute, Düsseldorf". 1941. In German. 3.00

5417-5419 PB L 82016 — Fast analysis of manganese, phosphorus, sulfur, and silicon in pig iron. By Hubert Kempf. 1941. In German. 2.00

5420-5424 PB L 82016 — The metallurgical industry of Lorraine and Luxemburg based on the minette ore production. By George Bulle. 1941. In German. 2.00

5425-5449 PB L 82016 — Lubricating process and lubricants for drawing of iron and steel wire. By Willy Heidenhain. 1941. In German. 4.00

5450-5454 PB L 82016 — New experiences with substitute materials for roller bearings and other parts undergoing wear in the rolling mill. 1941. In German. 2.00

5455-5459 PB L 82016 — Manufacture of steels containing tungsten using alloyed scrap and ore. By Friedrich Badenheuer. 1941. In German. 2.00

5460-5464 PB L 82016 — Development of rolling mills. By Albert Roll. 1942. In German. 2.00

5465-5467 PB L 82016 — The rationalization problem in the rolling mills of upper Silesia. By George Leder. 1942. In German. 2.00

5466-5479 PB L 82016 — 1941 Activity report of the "Verein deutscher Hüttenleute, Düsseldorf". 1942. In German. 3.00

5480-5481 PB L 82016 — Resin bearing for the neck of a roll. 1942. In German. 2.00

5482-5485 PB L 82016 — Progress in the use of substitute materials in rolling mills. By Johann Arens. 1942. In German. 2.00

5486-5487 PB L 82016 — Resin for roller bearings due to war economic conditions. By Heinrich Eckenberg. 1942. In German. 2.00

5488-5491 PB L 82016 — Progress in the use of substitute materials for machinery parts subjected to wear in the metallurgical industry. By Ewald Rohde. 1942. In German. 2.00

5492-5497 PB L 82016 — Use of substitute materials for parts undergoing wear of cranes and loading installations. 1942. In German. 2.00

5498-5501 PB L 82016 — Manganese slagging conditions during the Thomas process depending on the manganese content of the mixer iron. By Julius Welter and Josef Wampach. 1942. In German. 2.00

5502-5504 PB L 82016 — Decreasing maximum load and current consumption in metallurgical plants. By Richard Schiz. 1942. In German. 2.00

5505-5510 PB L 82016 — Manufacture of steel containing chromium by using chromiferous scrap in the basic Siemens-Martin and arc furnace. By Friedrich Badenheuer. 1942. In German. 2.00

5511-5517 PB L 82016 — Progress in the steel purification process. By Walter Michhols and Theo Loots. 1943. In German. 2.00

5518-5521 PB L 82016 — Operating procedure for the basic arc furnace based on the "Semi-duplex" method. By Rudolf Rinesch. 1943. In German. 2.00

5522-5525 PB L 82016 — Melting of high-quality wrought metal. By Heinz Gross. 1943. In German. 2.00

5526-5528 PB L 82016 — Desulfurization of pig iron with soda. By Jakob Willems. 1943. In German. 2.00

5529-5531 PB L 82016 — Specifications for the use of unalloyed steels of various manufacturing processes. By Karl Daeves and Hubert Hauttmann. 1943. In German. 2.00

5533-5536 PB L 82016 — Drawing tools and their use in extrusion installations. By Anton Mackert. 1943. In German. 2.00

5537-5549 PB L 82016 — 1942 activity report of the "Verein deutscher Eisenhüttenleute, Düsseldorf". 1943. In German. 3.00

5550-5553 PB L 82016 — The photometric determination of tungsten with potassium thiocyanide and stannic chloride or titanium chloride. By Benedikt Mader. 1943. In German. 2.00

5554-5555 PB L 82016 — Roller bearing of soft steel. 1943. In German. 2.00

5556-5559 PB L 82016 — Manufacture of wire from steel containing chromium. By Wilhelm Bischof and Wilhelm Pängel. 1943. In German. 2.00

5560-5561 PB L 82016 — Investigation and method of using rod end. By Otto Verwerk. 1943. In German. 2.00

5562-5565 PB L 82016 — Manufacture of steel containing chromium in the basic Siemens-Martin and arc furnace. By Friedrich Badenheuer, Werner Heischkeil, and Heinrich Müller. 1943. In German. 2.00

5566-5572 PB L 82016 — Tempering of Thomas steel for the purpose of saving material and improving the quality. By Franz Kösters. 1943. In German. 2.00

5573-5584 PB L 82016 — Heat treating of steel. By Wilhelm Stich and Alois Legat. 1944. In German. 3.00

5585-5588 PB L 82016 — The slag melting process used for "duplex" melting. By Heins Stallmann. 1944. In German. 2.00

5589-5591 PB L 82016 — Flattening test for the preliminary investigation of steel used in the manufacture of projectiles. 1944. In German. 2.00

5592-5594 PB L 82016 — Blue-shortness test for the production of steel shells. 1944. In German. 2.00

5595-5598 PB L 82016 — Data on the water requirements of metallurgical plants. By Kurt Guthmann. 1944. In German. 2.00

5599-5602 PB L 82016 — Construction of melting installations for high grade steel mills. By Franz Leitner. 1944. In German. 2.00

5603-5605 PB L 82016 — Necessary operations in the production of special pig iron. By Rudolf Hahn 1944. In German. 2.00

5606-5608 PB L 82016 — Deoxidation with ferro aluminum in the Thomas steel mill. By Josef Klärding and Adalbert Meyer. 1944. In German. 2.00

PB L 82014. KAISER WILHELM INSTITUT FÜR EISENFORSCHUNG, DÜSSELDORF, GERMANY. Strength and testing of iron and steel. (FIAT Microfilm Reel X-79, Frames 1-628). 1942 - 1946. 628 f. Price: Microfilm-$7.00 - Enlargement Print-$64.00.
This reel consists of 24 research reports. Individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $7.00. Please include PB and frame numbers when ordering individual items. In German.

Frame	Title	Price
1 - 41 PB L 82014	Brittleness and surface quality of helical springs. By Anton Pomp and Max Hempel. 1942. In German.	$6.00
42 - 70 PB L 82014	Stress properties of some austenitic steels at low temperatures. By Karl Mathieu. n.d. In German.	4.00
71 - 103 PB L 82014	Effect of cold drawing and artificial aging on the mechanical properties of steel, particularly at a multi-axial deformation of thick-walled pipes. By Alfred Krisch and Fritz Straeter. 1944. In German.	5.00

104 - 114 PB L 82014 — Influence of the rate expension on the tensile strength and elongation of austenitic steels. By Wilhelm Pusicha and Alfred Krisch. 1944. In German. 3.00

115 - 135 PB L 82014 — Calculating the force requirements for drawing with counteraction. By Werner Lueg and Josef Haas. 1944. In German. 4.00

136 - 142 PB L 82014 — "Idealization" curve, a new magnetization curve. By Henrich Lange, from "Mitteilungen aus dem Kaiser-Wilhelm-Institut fur Eisen forschung zu Dusseldorf", edited by Friedrich, Korber. Vol. 27. 1945. In German. 2.00

143 - 153 PB L 82014 — Comparison between hardening tests and X-ray photographs of the recovery and recrystallization of cold-drawn soft iron. By Georg Niebch and Helmut Neerfeld. 1943. In German. 2.00

154 - 174 PB L 82014 — Cold strengthening and recovery of band steel low in carbon considering the metallurgical properties of the materials. By Georg Niebsch and Jacques Brockhaus. 1945. In German. 4.00

175 - 187 PB L 82014 — Annealing of band steels from various melts low in carbon. By Anton Pomp, and others. 1945. In German. 3.00

188 - 212 PB L 82014 — Notched-bar impact tests and impact bending investigations as well as hardness measurements of substitute steels at low temperatures. By Alfred Krisch and Anton Pomp. 1945. In German. 4.00

213 - 246 PB L 82014 — Determination of spread during the hot rolling of steel on a smooth roller path. By Werner Lueg. 1947. In German. 5.00

247 - 264 PB L 82014 — Mechanics of tensile tests. By Erich Siebel and Siegfried Schwaigerer. 1945. In German. 3.00

265 - 291 PB L 82014 — Investigation of stress distribution of a contracted bar. 1944. In German. 4.00

292 - 311 PB L 82014 — Annealing tests with low alloyed cold drawn band steels. By Anton Pomp and others. 1946. In German. 3.00

312 - 347 PB L 82014 — Cold-strengthening of steel. Influence of thermal pretreatment and some alloying elements. By Georg Niebch. 1945. In German. 5.00

348 - 395 PB L 82014 — Behavior of thin cross sections under impact stress and at low temperatures. By Anton Pomp and Alfred Krisch. 1945. In German. 6.00

396 - 442 PB L 82014 — Fatigue tests at 500°-900° C of steels for the construction of furnaces and apparatus. By Anton Pomp and Alfred Krisch. 1945. In German. 6.00

443 - 493 PB L 82014 — Tensile tests and notched-bar impact tests with chromium-nickel molybdenum, chromium-molybdenum, and chromium - vanadium steels at high and low temperatures. By Anton Pomp and Alfred Krisch. 1945. In German. 7.00

494 - 520 PB L 82014 — Influence of annealing time on the hardness of tool steels. By Anton Pomp and Alfred Krisch. 1946. In German. 4.00

521 - 565 PB L 82014 — Mechanics of material testing. By Alfred Krisch. 1945. In German. 6.00

566 - 599 PB L 82014 — Upsetting tests with intermediately annealed and normalized steels. By Anton Pomp and Wilhelm Pusicha. 1945. In German. 5.00

600 - 607 PB L 82014 — X-ray motion picture photography of tensile tests. By Helmut Neerfeld. 1945. In German. 2.00

608 - 623 PB L 82014 — Mechanics of the γ-α transformation of iron. By H. Neerfeld and K. Mathieu. n.d. In German. 3.00

624 - 628 PB L 82014 — Bibliography of stress measurements with X-rays. n.d. In German. 2.00

PB L 82059. KAISER-WILHELM INSTITUT FÜR EISENFORSCHUNG, DUSSELDORF, GERMANY. Various metallurgical investigations. (FIAT Microfilm Reel L-86, Frames 4350-8020) 1926-1946. 671 f. Price: Microfilm-$7.00 - Enlargement print-$69.00. This reel was prepared by FIAT investigators in Germany. 87 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $7.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
4350-4370 PB L 82059	War emergency problems in the operation of blast furnaces. By Eduard Senfter. 1944. In German.	$4.00
4371-4394 PB L 82059	Tests for increasing the benzene production by blowing of gas in the coke furnace. By Peter. 1939. In German.	4.00
4395-4410 PB L 82059	Investigations of bituminous coal. By Koehne. 1939. In German.	3.00
4411-4416 PB L 82059	Examining the operation of benzene stills. By Claus Koeppel. 1939. In German.	2.00
4417-4442 PB L 82059	Progressive developments of processing by-product gases in coking plants. By Gras. 1941. In German.	4.00
4443-4466 PB L 82059	Operational measures on coke furnaces for increasing the production of oil. By W. Scheer. 1939. In German.	4.00
4467-4479 PB L 82059	Thermo technical evaluation of modern coke furnaces. By Walter Litterscheidt. 1941. In German.	3.00
4480-4484 PB L 82059	Processing of by-product gases in coking plants. By Gras. 1942. In German.	2.00
	Progress reports of the "Saarbruhen-Aktiengesellschaft" No. 1. Coking and carbonizing. Saarbrücken. 1942. In German.	
4485-4491 PB L 82059	Coking and carbonizing coal from the Saar and Lorraine. By Walter Gollmer. 1942. In German.	2.00
4492-4496 PB L 82059	Tests for increasing the yield at the processing of valuable carbon material. By Herbert Fischer and Hans Flach. n.d. In German.	2.00
4497-4499 PB L 82059	Processing of tar from the "Velsen" carbonization plant. By Adolf Klein. n.d. In German.	2.00

4500-4502 PB L 82059 — Recovery of gaseous sulfur by means of the ammonia process in the "Reden" coking plant. By Hugo Lohrmann and Paul Stoller. n.d. In German. 2.00

4503-4509 PB L 82059 — Safety measures against mining accidents. By Otto Lwetkens. n.d. In German. 2.00

4510-4527 PB L 82059 — Use of small pieces of blast-furnace coke for melting purposes in the cupola furnace. 1944. In German. 3.00

4528-4531 PB L 82059 — Evaluation of blast furnace coke. n.d. In German. 2.00

4532-4537 PB L 82059 — Economy measures with foundry coke and their effects on quality requirements. By W. Guns. n.d. In German. 2.00

4538-4545 PB L 82059 — War time problems in the operating of blast furnaces. By E. Senfter. 1944. In German. 2.00

4546-4552 PB L 82059 — Variable relationships between foundry coke and foundry shaft furnace. By W. Guns. 1944. In German. 2.00

4553-4560 PB L 82059 — German coking plants during wartime. By W. Esserink. 1944. In German. 2.00

4561-4564 PB L 82059 — Prevention of explosions in blast furnaces. 1942. In German. 2.00

4565-4566 PB L 82059 — Thin walled, armored blast furnaces in Kladno. By E. Baumgartner. 1942. In German. 2.00

4567-4577 PB L 82059 — Induced draft sintering process. By Guthmann. 1939. In German. 2.00

4578-4655 PB L 82059 — Utilization of red mud. 1936-1943. In German. 4.00

4656-4659 PB L 80259 — Sintering problems. 1942. In German. 2.00

4660-4679 PB L 80259 — Mining and sintering in the minette district of Lorraine and Luxemburg. By Alfons Wagener and Alfons Graff. 1941. In German. 3.00

4680-4687 PB L 80259 — Sinter installation of the "Hochumer Verein". By W. Feldmann. n.d. In German. 2.00

4688-4695 PB L 80259 — The optional operation of blast furnaces. By Edward Senfter. 1944. In German. 2.00

4696-4719 PB L 80259 — Use of small pieces of foundry coke for melting processes in the cupola furnace. By Hans Jungbluth. 1944. In German. 4.00

4720-4723 PB L 80259 — Evaluation of blast furnace coke. n.d. In German. 2.00

4724 PB L 80259 — Investigating physical properties of coke. 1944. In German. 2.00

4725-4758 PB L 80259 — Composition of ore mixtures. 1926-1934. In German. 5.00

4759-4767 PB L 80259 — Old and new iron smelting methods. By Robert Durrer. 1940. In German. 2.00

4768-4788 PB L 80259 — Drying the blast air for furnaces. 1938. In German. 4.00

4789-4802 PB L 80259 — Possible use of air enriched with oxygen in metallurgical plants. 1937-1941. In German. 3.00

4803-4817 PB L 80259 — Construction and output of blast furnaces. By Pawloff. 1941. In German. 3.00

4818-4821 PB L 80259 — The Russian production increase by blast furnaces and metallurgical plants. 1941. In German. 2.00

4822-4825 PB L 80259 — Bibliography (mainly of Russian origin) dealing with the use of oxygen enriched air used in metallurgical plants. 1946. In German. 2.00

4826-4832 PB L 80259 — Investigating of blast furnaces. 1944. In German. 2.00

4833-4837 PB L 80259 — Production of gas by means of the "Thyssen-Galocsy" process. 1940. In German. 2.00

4838-4839 PB L 80259 — Dressing tests in a cylindrical rotary kiln. 1936. In German. 2.00

4840 PB L 80259 — Production of "Lithopone". n.d. In German. 2.00

4841-4844 PB L 80259 — Use of iron pyrite deposits in "Störselberg". 1936. In German. 2.00

4845-4846 PB L 80259 — The "Lurgi" dressing process. 1937. In German. 2.00

4847-4852 PB L 80259 — Report on the Renn process plant with bibliography. 1937-1942. In German. 2.00

4853-4863 PB L 80259 — Out put increase of the blast furnace by determining the optional ore reduction temperature and prevailing balancing conditions. 1943. In German. 3.00

4864-4869 PB L 80259 — Iron ore deposits of "Orsko-Chalilow". 1943. In German. 2.00

4870-4871 PB L 80259 — Drawings of the "Mathesius" furnace with "Hanigmann" gas purification and "Senfter" gas firing system. 1946. In German. 2.00

4872-4883 PB L 80259 — Blast furnace operation with acid slag. 1937. In German. 3.00

4884-4889 PB L 80259 — Operating blast-furnaces in bombed areas. 1943. In German. 2.00

4890-4891 PB L 80259 — Proposals for standardizing blast furnaces. By W. Feldmann and A. Rein. 1943. In German. 2.00

4892-4893 PB L 80259 — Use of "Taberg" ore. 1943. In German. 2.00

4894-4907 PB L 80259 — Improving the operation of blast furnaces. 1943. In German. 3.00

4908-4910 PB L 80259 — Metallurgical problems with slags. 1945. In German. 2.00

4911-4913 PB L 80259 — Evaluation of blast furnace data of basic and acid Molten Thomas iron. By A. Ristow. 1938. In German. 2.00

4914-4918 PB L 80259 — Thin-walled armored blast furnaces in Kladno. By E. Baumgartner. 1942. In German. 2.00

4919-4920 PB L 80259 — Production and properties of carbon bricks. 1946. In German. 2.00

4921-5020 PB L 80259 — Testing and use of various blast furnace slags. 1934-1943. In German. 11.00

PB L 85793. MALISIUS, R. Effect of welding conditions on the warping of griders with off-center welds. (David W. Taylor Model Basin Translation 93) Jul 1941. 12 p. Price: Microfilm-$1.25 - Photostat-$2.00
When off-center longitudinal welds are applied to girders, warping, shrinking, and internal stresses result. It is desirable to be able to predetermine the type and magnitude of these phenomena. This would achieve the result that in planning and construction measures could be adopted to minimize harmful effects or even to eliminate them completely. This paper reports tests intended to contribute to this result. Translated by M. C. Roemer from a German article in Elecktroschweissung, Vol. 11, No. 8, 1940.

PB L 85957. O'NEILL, JOHN J. Application of tooth-type lockwashers to soft metals. (Camp Coles Signal Lab Tech Memo M 1050) Mar 1947. 20 p. Price: Microfilm-$1.25 - Photostat-$2.00
The completion of the vibration tests and resistance measurements described herein has resulted in information which heretofore has not been available to this Laboratory. Results indicate that the use of tooth-type washers does not adversely affect the soft metal to which they are applied when tightened in accordance with previously established standards. The fact that dished-type lockwashers with toothed periphery are superior in locking effectiveness and less likely to scuff soft metal is of great interest. This type of lockwashers will be preferred for soft metal applications in all future suppression projects conducted by this Laboratory. The scuffing effect encountered when applying internal-tooth lockwashers was to be expected and lockwashers of this type have only been utilized when dictated by space requirements.

PB L 74156. SIEMENS-SCHUCKERTWERKE A. G., BERLIN. Supersonic tin-plating of aluminum wire. (FIAT Microfilm Reel 00 299, Frames 1-5) 1946. 5 f. Price: Microfilm-$1.00 - Enlargement print-$1.50
This FIAT microfilm reel consists of a description of a method for tin-plating aluminum wire. The method was developed in Siemens-Schuckertwerke laboratories and uses a tin-zinc solder bath in which cavitation is induced by a supersonic magnetostrictive oscillator. In German with an English introduction.

PB L 86001. U. S. ORDNANCE DEPT. Metal powder compacts, iron base for miscellaneous parts (except bearings), (with amendment no. 1, Sept 11, 1943). (Tentative Specification AXS-1067). Aug 1943. 11 p. Price: Microfilm-$1.25 - Photostat-$2.00

PB L 85900. VASTA, J. The effect of joint eccentricity on the ultimate strength of plating in compression. (David W. Taylor Model Basin Rept 440). Oct 1937. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00
Unsymmetrical joints in plating introduce a certain degree of eccentricity which may be expected to reduce the ultimate compressive strength. Model tests show that with a lap joint, which represents the maximum eccentricity likely to be encountered in practice, the reduction in strength may amount to about 10 per cent.

PB L 85856. WINDENBURG, D. F. Strain distribution on specimens in a fatigue test. (David W. Taylor Model Basin Rept 474). Mar 1941. 22 p. Price: Microfilm-$1.50-Photostat-$3.00
Strain gage measurements were made on two solid plate test specimens of medium steel 5 inches wide by 7/8 inch thick, mounted for routine fatigue tensile test in an endurance testing machine at the University of Illinois, to determine the load distribution over the middle cross section of the specimens. Both static and dynamic strain measurements were made. Static strain data were taken with two types of strain gages, Tuckerman optical gages, and metalectric gages of the resistance type. Dynamic strain data were taken with the metalectric gages. The static and dynamic strain data are compared and conclusions are drawn.

PHYSICS

General

PB L 85845. ACKERET, J. Cavitation. (David W. Taylor Model Basin Translation 22) Jun 1933. 22 p. Price: Microfilm-$1.50 - Photostat-$3.00
This is a translation of a German article discussing Cavitation, and published in the "Handbuch der Experimental Physik Vol. IV, Part I." Cavitation in flowing liquids occurs when the static pressure at any point in the stream drops to the vapor pressure corresponding to the temperature of the liquid. The liquid then boils and, through the formation of bubbles, is converted into a heterogeneous mixture of liquid and gaseous phases. Considerable disturbance will be created in the flow, and this phenomenon has caused much trouble in the design of rotating machines. Loss in efficiency and power output of hydraulic machines may follow as a result of the disturbance in flow, but in addition, experience shows that, particularly for high velocities, the appearance of cavitation gives rise to extensive corrosion, i. e., destruction of the surface over which the flow has taken place, the surface taking on a spongy appearance. This report principally discusses means of preventing this corrosive effect. A bibliography and thirty figures are included.

PB L 85898. BERG, S. Dynamic stress measurements. (David W. Taylor Model Basin Translation 65). Jan 1942. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00
In most cases, the loads on structural parts in operation can be determined only by dynamic strain measurements. The apparatus developed for this purpose by the Deutsche Werke, Kiel, makes use preponderantly of mechanical-optical means for measuring strain. The stress is then determined from the strain by Hooke's Law. A number of strain gages and their possible uses are described. Translated by M.C.Roemer from a paper in the VDI-Zeitschrift, vol. 81, No. 10, Mar. 6, 1937.

PB L 85910. BOLLENRATH, F. Factors affecting the time and fatigue strength of materials. (David W. Taylor Model Basin Translation 122). Apr 1944. 19 p. Price: Microfilm-$1.25 - Photostat-$2.00
Several cases are cited to show how widely time and fatigue stresses under working conditions differ from those under the conditions that usually exist in laboratory tests. Some of the factors that cause these differences are work interruptions, periodic changes in limit stresses and mean stresses with a few groups and load conditions in periodic sequence, statistical variations and sequence of limit stresses and mean stresses, fretting erosion at fixation points, and effects of notching. By several examples drawn from aeronautics it is shown how data on these factors, obtained from alternating load tests by a variation of Wöhler's technique, now in general use, can be utilized by the engineer to achieve greater economy of materials. Numerous data are given to show recent trends. Translated by F. A. Raven from an article in Luftfahrtforschung, vol. 17, no. 10, 1940.

PB L 85912. BRÜHOIG, ROLF. Experimental determination of the hydrodynamic increase in mass in oscillating bodies. (David W. Taylor Model Basin Translation 118). Nov 1943. 22 p. Price: Microfilm-$1.50 - Photostat-$3.00
The methods for determining virtual mass under conditions of linear and vibratory motion known up to the present are briefly described. For the study and numerical representation of purely hydrodynamic inertia effects on oscillating bodies, a simple test method for forced vibrations is reported and illustrated by tests on vibrating disks. In converting the results of model tests to full scale, principles of similitude must be considered. These are given for the simplified case of a ship's propeller vibrating harmonically parallel to the free surface in an undisturbed fluid. This article appeared in Schiffbau, June 1940 and was translated from the German by F. A. Raven.

PB L 86692. BRITISH INTELLIGENCE OBJECTIVES SUB-COMMITTEE. Report of interrogation of Prof. Dirkson and Dr. Neuber, Jan. 30th, 1946. (Photo-elasticity, brittle lacquers, repeated loading.) (Interrogation Rept 52) Jul 1946. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00
Photo-elasticity--no outstanding developments during the war, very little to report. Brittle lacquers - practical applications have been made on welded joints and the method was also used for examining the slip in plastic deformation and for showing which parts of a specimen become over strained. Repeated loading - research on rate of development of clearance in pin joints under repeated load and comparisons between load-extension curve under repeated loading and under static loading.

PB L 85828. DARNELL, R. C. Hydrodynamic characteristics of twelve symmetrical hydrofoils. (David W. Taylor Model Basin Rept 341) Nov 1932. 50 p.
Price: Microfilm-$2.00 - Photostat-$5.00
The center of pressure and absolute coefficients of lift, drag, and moment are given for twelve hydrofoils of symmetrical section and 0.25 sq. ft. area at a Reynolds' number of approximately 175,000. The hydrofoils were towed (leading edge vertical) in the tank of the Model Basin beneath a special flat-bottomed float that carried the dynamometer by which the lift, drag, and torque were measured. The angle of attack was varied from 0° to 45° and the gap between the top of the hydrofoil and the bottom of the float from 0 to 2 inches. The aspect ratios studied were 0.5, 1.0, 1.5, and 2.0. The effect of running the hydrofoils reversed was also studied. In general the results show good agreement with data from wind tunnel tests.

PB L 81165. GREENFIELD, M. A. and others. Underwater explosion research. Progress report. Parts 1-5. (David W. Taylor Model Basin Rept R-202). Feb 1944. 61 p.
Price: Microfilm-$2.50 - Photostat-$7.00
This progress report, Part 1,2,3,4 and 5, deals with various phases of the experimental program at the David Taylor Model Basin which relate to the protection of ships from the effects of underwater explosions. Part 1 is entitled "A method for determining energy absorption of steel at high rates of loading"; Part 2: "The pressure-time curve for underwater explosion of very small charges of tetryl"; Part 3: "The radial displacement of plastically deformed diaphragms"; Part 4: "The pressure-time relationship in water near the center of a clamped circular steel diaphragm under explosive load" and Part 5: "Resolution of the peak pressure recorded with tourmaline crystal pressure gages." Graphs, drawings and photographs are included.

PB L 85917. HALBERSTADT, SIEGFRIED and PRAUSNITZ, PAUL H. On the size of gas bubbles and droplets in liquids. (David W. Taylor Model Basin Translation 108). Mar 1943. 20 p.
Price: Microfilm-$1.25 - Photostat-$2.00
An apparatus is described which for the first time permits the size of gas bubbles and drops in liquids to be measured accurately. The size of gas bubbles which emanate from diaphragms of variable pore diameter is studied in water and ether. The resultant curve with respect to the pressure is approximately hyperbolic. The pore diameters, calculated from the pressure and capillary constants by Bechhold-Einstein method, give comparable values at least with respect to the order of magnitude for water and ether. Variation in the size of gas bubbles produced by extrusion of gas through the same filter plate into various liquids is determined. The size of the bubbles as a function of pressure is observed at clearly defined individual orifices and diaphragms. The size of the droplets of liquid, which occur in perforations, is determined for diaphragms of varying pore diameters. In the system composed of acetic ester and water the drops are larger than in the system of ether and water. Finer filter plates give finer droplets. To do this, however, they require higher pressure to pass through the diaphragm. A surface-active material in water decreases the size of the drops. Translated by F.A. Raven from an article in Zeitschrift für angewandte Chemie, 1930.

PB L 85990. HARRIS, PAMELA. Separation of shock wave from the nose of 40° cone. (Aberdeen Proving Ground Ballistic Res Lab Rept 651) Oct 1947. 5 p.
Price. Microfilm-$1.00 - Photostat-$1.00
The critical Mach number at which a shock wave becomes separated from the nose of a cone is theoretically predicted by Taylor and Maccoll. Two rounds of 40° included angle cone cylinder models E24 were fired in the Aerodynamics range at very nearly the predicted critical Mach number. The separation was observed to occur at a Mach number between 1.20 and 1.22. The theoretical value of 1.212 as determined by Kopal may thus be considered verified.

PB L 85808. HUTCHINSON, J. F. The reduction in buoyancy of various materials when submerged deeply in water. (David W. Taylor Model Basin Rept R-196). Dec 1943. 4 p.
Price: Microfilm-$1.00 - Photostat-$1.00
Experiments were conducted in a pressure chamber on specimens of balsa, white pine, cork, and "Foamglas," to determine the amount of buoyancy lost by these materials at various depths up to 150 feet under water. It was found that balsa wood sheathed in brass and Foamglas were the best buoyant materials for operation at great depths under water. Six figures and two tables are included.

PB L 85835. LANDWEBER, L. Flow about a pair of adjacent, parallel cylinders normal to a stream. Theoretical analysis. (David W. Taylor Model Basin Rept 485). Jul 1942. 30 p. Price: Microfilm-$1.50 - Photostat-$3.00
To account for the behaviour of a pair of adjacent parallel cylinders normal to a stream, a photographic study of the wake was undertaken. Three types of wake were found, only one of which could cause the cylinders of the pair to vibrate transversely with a phase difference of 180 degrees. By investigating theoretically a necessary condition for the stability of four rows of vortices, criteria were found from which the type of wake can be predicted. Appendices I, II, and III cover the following subjects: 1) Wake and Eddy frequency of a circular cylinder; 2) Eddy frequency in the wake of a pair of parallel cylinders: and 3) cavitation between parallel cylinders. Photographs, tables and curves are included.

PB L 85801. LANDWEBER, L. Lift of various devices for leveling a long cylinder towed through a fluid. (David W. Taylor Model Basin Rept R-68) Sep 1942. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00
For a particular application it was required to tow under water at a nearly constant predetermined depth a long cylinder of small positive buoyancy. The acceptable rise of the tail end of the cylinder, however, was much less than was obtained when the cylinder was towed alone without any auxiliary devices. Consequently, tests were made to determine effective means of increasing the lift on the cylinder. The lift coefficients obtained with the various devices tested for this purpose will be of value in general as preliminary design data for stabilizers for other bodies. Four figures and one sketch are included.

PB L 85844. MCGOLDRICK, R. T. A study of ship hull vibration. (David W. Taylor Model Basin Rept 395) Feb 1935. 44 p. Price: Microfilm-$2.00 - Photostat-$5.00
This report deals with the various types of vibration of the complete hull structure which may be set up by periodic forces which synchronize with one of the natural frequencies. It includes a review of the investigations made in the field of hull vibration from the original studies of O. Schlick in 1884 up to date. It also gives an account of model experiments and full scale measurements conducted recently at the U. S. Experimental Model Basin. Particular

attention is given to the methods of J. L. Taylor, E. Schadlofsky, and F. M. Lewis which are considered the most practical of the theoretical methods. The limitations of these methods are pointed out and the relation between the vibration problem and the strength problem is emphasized. An appraisal is given of the method of F. M. Lewis for estimating the effect of the surrounding water on the natural frequency. The conclusion is drawn that for naval vessels the most practical procedure is to estimate the natural frequencies from measurements previously made on ships of the same class by selecting the appropriate value of the Schlick constant. The graphical methods are recommended only for cases of radically new design where empirical constants are not available.

PB L 85807. MCGOLDRICK, R. T. A vibration manual for engineers. (David W. Taylor Model Basin Rept R-189) Mar 1944. 27 p. Price: Microfilm-$1.50 - Photostat $3.00.
There is presented in this manual a system of symbols which is followed throughout in the subsequent formulas. All formulas will yield numerical answers in inch-pound-second (ips) units if the values substituted are in accordance with this notation. These formulas cover the ideal linear systems usually dealt with in textbooks on vibration with some special formulas useful in determining the elastic characteristics of structures by means of vibration generators. Emphasis is also given to formulas useful in vibration instrument design and the design of vibration-proof mountings. A number of useful formulas for bars, plates, and membranes are included. Thirtyfour figures are included.

PB L 85916. MEYER, ERWIN and TAMM, KONRAD. Natural vibration and damping of gas bubbles in liquids. (David W. Taylor Model Basin Translation 109). Apr 1943. 12 p. Price: Microfilm-$1.25 - Photostat-$2.00
The natural frequencies and damping decrements of gas bubbles in liquids, especially in water and glycerin, have been measured in the frequency ranges of 1.5 to 7 kilocycles and from 15 to 35 kilocycles. The results agree with calculations by Minnaert and Smith with respect to the resonance frequency f_0. This is found by the expression $f_0 = \frac{0.66}{d}$ kilocycles, where d is the diameter of the bubble in centimeters. The decrement is composed of two parts, the constant component of radiation damping and a component proportionate to the frequency. At 25 kilocycles the decrement amounts to about 0.9. The measuring methods were as follows: In the range of 15 to 35 kilocycles the release of bubbles electrolytically produced on an electrode under conditions of sound transmission was observed, and the speed along the surface of the bubble as a function of the diameter was measured with a type of ribbon microphone. In the frequency range of 1.5 to 7 kilocycles the amplitude of the air bubbles as a function of the frequency was photoelectrically determined. Finally, the sonic spectra during the rise of air bubbles from a nozzle were recorded with a supersonic analyzer. Translated by F. A. Raven from an article in Akustische Zeitschrift, May 1939.

PB L 85842. MILLER, B. L. Analysis of motions and stresses in a high-impact shock testing machine. (David W. Taylor Model Basin Rept 536) Jul 1944. 33 p. Price: Microfilm-$1.75 - Photostat-$4.00
Dynamic strains produced in the table holding-down bolts and in other parts of the Engineering Experiment Station H-I Shock Testing Machine for Medium-Weight Equipment during its operation were measured with SR-4 metalectric strain gages. The stresses set up in the bolts by the most severe hammer impacts were found to be less than 50,000 pounds per square inch. This is about one-half the value calculated on the assumption that all the energy of the hammer blow is absorbed by the bolts. Possible reasons for the low stresses are discussed. It is concluded that the reduction is caused by a loss of energy at hammer impact and by the distribution of the remaining energy among the bedplate, table, and bolts. Tables, figures, diagrams, and six appendices are included.

PB L 85833. MILLER, B. L. Theory of the hydraulic brake or buffer. (David W. Taylor Model Basin Rept 482). Jan 1942. 22 p. Price: Microfilm-$1.50 - Photostat-$3.00
This report gives a simplified theory of a hydraulic brake which consists of a liquid-filled cylinder and a piston with orifices. The effect of viscosity and friction are neglected, and only the drainage of energy away from the system by an accelerated escape of fluid through the throttling orifices is considered. This report consists largely of a mathematical analysis based on calculation of kinetic energy for the fluid and of the rate of change of momentum for the system to be retarded. The kinetic energy E of the fluid is expressed by equation (3a) and the rate of change of momentum by equation (7) on pages 4 and 5 respectively. An appendix and nine figures are included.

PB L 86451. MILLER, G. A. and WIENER, F. M. Transmission and reception of sounds under combat conditions. Summary technical report of Division 17, NDRC, Vol. 1. 1946. 303 p. Price: Microfilm-$7.00 - Photostat-$31.00
The program reported in this volume was carried out for the Office of Scientific Research and Development at the Psycho-Acoustic and Electro-Acoustic Laboratories of Harvard University. The science and art of military acoustics was recognized early in the defense period to be inadequate in many particulars to expected demands. It became increasingly clear that much of our communication equipment had too little power, too much distortion, and too great a vulnerability to noise. Special acoustic problems and applications were coming to the fore: Direction finding by means of sound waves; acoustic warning and signalling systems; sonic airspeed indicators; etc. Scientific inquiry into the conditions of use, the causes of failure, the specifications for success were made. This work did not end with evaluation of existing or proposed equipment, but on many occasions required the engineering of new devices. Each chapter bears a logical relation to each other and presents a fairly complete picture of the problems involved in the transmission and reception of sounds under conditions of battle. The 18 chapters have been organized around specific problems, rather than around specific contracts or chronological sequence. It is hoped that these chapters will form an introduction to the problem of reliable military voice communication and to the present state of our knowledge. Fundamental information is introduced in order to make the story more complete, and the physical and psychological aspects are treated together in summary as they were studied together in war. The organization and administration of the research are briefly summarized in a special section. There are also included a glossary of terms, a bibliography listing references by chapters, OSRD appointees of Division 17, Sections 17.1, 17.2 and 17.3, a list of contract numbers, contractors and subjects of contracts, Service Project numbers and a subject index.

PB L 85831. MISES, R. VON. The critical external pressure of cylindrical tubes under uniform radial and axial load. (David W. Taylor Model Basin 366; Translation 6) Aug 1933. 19 p. Price: Microfilm-$1.25 - Photostat-$2.00
The magnitude of buckling pressure and of the deformation of a cylindrical tube closed at both ends and subjected to external pressure is calculated on the basis of elasticity equations for thin shells. The results of the theory are compared with tests on two series of models. Complete agreement is shown with regard to the lobe formation; the problem of determining the buckling pressure has not yet been completely solved. Translated by D. F. Windenburg from an article in Stodola's Festschrift, Zurich, 1929, pp. 418-430.

PB L 85802. SAUNDERS, H. E. Minutes of the 1942 annual meeting of the American Towing Tank Conference. (David W. Taylor Model Basin Rept R-72). Oct 1942. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85713. SCHAFER, H. G. and ROBERTS, W. B. Report of test on captured enemy equipment German audible signals.

(Naval Res Lab Test Rept 655). Jul 1947. 42 p. Price: Microfilm-$2.00 - Photostat-$5.00

Eighteen German audible signals, representing the products of five different manufacturers, were tested. This report covers the characteristics of eleven typical samples of gongs, cowbells, and horns from the five manufacturers. The units evaluated are listed. Tables, diagrams and twenty-seven photographs are included.

PB L 85921. SCHNEIDER, WILHELM. The determination of pressure in atmospheric shock waves due to blasting and the firing of guns. (David W. Taylor Model Basin Translation 102). Apr 1943. 35 p. Price: Microfilm-$1.75 - Photostat-$4.00

The time function of atmospheric shock waves has been approximated in the simplest possible terms to ascertain the behavior of vibratory systems under the influence of these waves. Particular attention was given to the transient stages, and, since it is difficult to get a perspective of this stage from the analytical formulas, much study has been devoted to the calculation and presentation of specific cases. The report presents a correlation between the natural frequency required to obtain a diaphragm record without distortion, and the characteristic duration of the initial pressure rise of atmospheric shock waves. It will henceforth permit an analysis of the effect of waves of this kind on vibratory systems. It will also obviate the uncertainties and errors of former methods based on the results of studies of undamped sound waves. A recording apparatus devised for use at greater distances from the point of detonation is described; this also produces undistorted records of atmospheric shock waves near the point of detonation. The apparatus represents a great improvement over instruments in use up to this time. Important conclusions can, however, be derived from distorted recordings of atmospheric shock waves with the aid of the procedure described. These studies have not only improved the determination of pressure in atmospheric shock waves, but they can be advantageously used wherever these waves affect buildings or structures of any type, and where the effects must be analyzed before or after occurrence. Translation by F. A. Raven of an article from Zeitschrift für das gesamte Schiess- und Sprengstoffwesen, 1939.

PB L 85914. SCHNURMANN, ROBERT. On the size of gas bubbles in liquids. (David W. Taylor Model Basin Translation 111). Apr 1943. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

By taking a water-alcohol mixture as an example, it is found that the macroscopic sizes of the gas bubbles pressed through a filter are primarily a function of the viscosity of the liquid and not of its surface tension. A minimum bubble size corresponds to a maximum on the viscosity curve. A viscosity-bubble size curve is plotted for the range of viscosity from 0.008 cgs to 0.04 cgs. The curve shows that the bubble size increases inversely with the viscosity. Experiments by Prausnitz and Halberstadt are discussed; the part played by the mechanism of coalescence of the sub-visible gas bubbles previously discovered by the author is shown. The pore diameter of the filter does not affect the rough qualitative effect, as long as the points of origin of the sub-visible bubbles are close enough together to permit their collision. Translated by F. A. Raven from an article in Kolloid Zeitschrift, Zeitschrift für Wissenschaftliche und Technische Kolloidchemie, vol. 80, No. 2, Aug. 1937.

PB L 86425. U. S. NATIONAL DEFENSE RESEARCH COMMITTEE. Basic methods for the calibration of sonar equipment. Summary technical report of Div. 6, vol. 10. 1946. 180 p. Price: Microfilm-$5.25 - Photostat-$18.00

This report was prepared by the staff of the Underwater Sound Reference Laboratories of the Columbia University, Division of War Research covering a four-year period of development and experimentation. Division 6 of the National Defense Research Committee was responsible for the development of new and improved methods of detecting submerged submarines. Experience had shown that sound is the only form of energy which can be propagated through sea water with sufficient intensity and range to serve as a practical method for detection. For this reason there was initiated a thorough study of the acoustical properties of sea water as well as of methods for injecting sound energy into the water and of detecting its presence. Realizing that in a study of this kind accurate measurement in terms of known and reproducible standards is essential, Section C-4 (predecessor of Division 6) undertook early in 1941 to develop a number of standard projectors and hydrophones covering the useful frequency ranges and capable of being accurately calibrated in terms of energy output or input. Further, the Section undertook to develop methods for calibrating these standards and methods applicable to the accurate testing of underwater sound gear under development or in production by various Government agencies. In addition to the testing stations, various of the Division's contractors found it necessary to establish at suitable locations less elaborate testing laboratories to facilitate the testing of sonar devices, systems, and methods at various stages of development. In the preparation of this volume, the emphasis has been placed on the experience gained by Division 6 laboratories in developing testing methods and apparatus and in carrying through an extended program of precision measurements on underwater acoustic devices. The basic principles of these measurements are developed and systematized in close coordination with a description of the measuring and calibrating facilities of the two chief test stations. Other Division laboratories were at the Massachusetts Institute of Technology, Harvard University, University of California and Columbia University. There are included a glossary of terms, a bibliography, a list of contract numbers, contractors and subject of contracts, service project numbers, a list of agencies comprising the Hydrophone Advisory Committee and a subject index.

PB L 85991. WINMENBURG, D. F. Master charts for the design of vessels under external pressure. May 1947. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00

This paper presents the theoretical equations underlying nondimensional charts suitable for the design of circular cylindrical steel vessels under external pressure. The method used in constructing the charts is shown and their advantages and limitations are discussed. It is shown also how the charts can be used for the design of pressure vessels constructed of nonferrous and other materials which have nonlinear compressive stress-strain curves. Reprinted from the Transactions of the A. S. M. E. for May 1947.

TEXTILES AND TEXTILE PRODUCTS

PB L 86250. EDELMAN, NORMAN B. Determination of statistical control and related factors in the performance of breaking strength testing of fabrics. (QM Textile Series Rept 26). Sep 1946. 11 p. Price: Mimeo-$0.50

This paper is based on a study conducted at the Philadelphia Quartermaster Depot. It illustrates the variety of information available in control studies of one of the most widely used tests in textile technology, the grab method for determining breaking strength of woven fabrics. Data are presented in nine tables.

PB L 86252. WHITE, W. LAWRENCE and SIU, RALPH G. H. Resin impregnation of cotton fabrics for prevention of microbiological decay. (QM Textile Series Rept 29; Microbiological Series Rept 5). Jun 1946. 8 p. Price: Mimeo-$0.50

Microbiological tests with Metarrhizium glutinosum and Aspergillus flavipes and also soil burial studies were made on cotton cloth impregnated with commercial urea-formaldehyde and melamine resins. In general a high degree of resistance to microbiological degradation was imparted to the cloth through the application of resins. Complete resistance was exhibited by cloths with about 11% Aerotex 450, 6 percent Aerotex M-3, 12 percent Uformite, 12 percent RHonite, 7 percent Resloom HP, 7 percent Resloom NC-50, and 7 percent Urea-formaldehyde resins. High resistance to microbiological decay was exhibited by lower concentrations of resin-impregnations. Unmercerized cloth was degraded by the micro-organisms at a slower rate than mercerized cloth. Tables are included.

AERONAUTICS

PB L 81294. U. S. AERONAUTICAL BOARD. Belt assembly-troop and turret gunner's safety. (Army-Navy Aeronautical Standard Drawing AN 6506). May 1947. 1 p. Price: Microfilm-$1.00 Photostat-$1.00.

PB L 26145-R. U. S. AERONAUTICAL BOARD. Cable assembly - runway marker lamp (for snow areas). (Army-Navy Aeronautical Standard Drawing AN2534). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86482. U.S. AERONAUTICAL BOARD. Clamp - hose. (Army-Navy Aeronautical Standard Drawing AN 737). Nov 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26714-R. U. S. AERONAUTICAL BOARD. Container assembly-metal shipping (4 gallons). (Army-Navy Aeronautical Standard Drawing AN 8024). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26715-R. U. S. AERONAUTICAL BOARD. Container assembly - metal shipping (6 and 7 gallons). (Army-Navy Aeronautical Standard Drawing AN 8025). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26717-R. U.S. AERONAUTICAL BOARD. Container assembly-metal shipping (15 and 19 gallons). (Army-Navy Aeronautical Standard Drawing AN8027) Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26240-R6. U.S. AERONAUTICAL BOARD. Cover-top and bottom fuselage lights. (Army-Navy Aeronautical Standard Drawing AN3099) Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26650-R. U. S. AERONAUTICAL BOARD. Cylinder - 8 gram capacity CO_2. (Army-Navy Aeronautical Standard Drawing AN6534). Jan 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86480. U.S. AERONAUTICAL BOARD. Cylinder and regulator assembly - portable oxygen. (Army-Navy Aeronautical Standard Drawing AN 6020). Nov 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26387-R4. U.S. AERONAUTICAL BOARD. Envelope-engine protective (for R-1820, R-1830, and R-2000 engines). (Army-Navy Aeronautical Standard Drawing AN4072). Mar 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85738. U. S. AERONAUTICAL BOARD. Ferrule-conduit, flexible. (Army-Navy Aeronautical Standard Drawing AN 3050). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85739. U. S. AERONAUTICAL BOARD. Ferrule-conduit, flexible, one step. (Army-Navy Aeronautical Standard Drawing AN 3051). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26199-R2. U. S. AERONAUTICAL BOARD. Ferrule-conduit, flexible, one step, synthetic covered. (Army-Navy Aeronautical Standard Drawing AN 3048). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26201-R2. U. S. AERONAUTICAL BOARD. Ferrule-conduit, flexible, two step. (Army-Navy Aeronautical Standard Drawing AN 3052). Aug 1947. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26228-R. U. S. AERONAUTICAL BOARD. (1) Ferrule-conduit, flexible, two step, synthetic covered. (Army-Navy Aeronautical Standard Drawing AN 3083). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26694-R. U. S. AERONAUTICAL BOARD. Fitting - Cargo airplane tie down. (Army-Navy Aeronautical Standard Drawing An 7516). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80778. U. S. AERONAUTICAL BOARD. Fitting assembly-runway marker, 6.6 ampere for snow areas. (Army-Navy Aeronautical Standard Drawing AN2577). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 25936-R2. U. S. AERONAUTICAL BOARD. Fittings - lubricator, pressure - grip, type D. (Army-Navy Aeronautical Standard Drawing AN287). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 81298. U. S. AERONAUTICAL BOARD. Flange-hose connection. (Army-Navy Aeronautical Standard Drawing AN4162). Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 81300. U. S. AERONAUTICAL BOARD. Flange - oil connection 3 bolt. (Army-Navy Aeronautical Standard Drawing AN4160). Apr 1947. 1 p. Price: Microfilm $1.00 - Photostat-$1.00.

PB L 81299. U. S. AERONAUTICAL BOARD. Flange - oil connection 4 bolt. (Army-Navy Aeronautical Standard Drawing AN4161). Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 86481. U.S. AERONAUTICAL BOARD. Generator-electric tachometer (two pole type). (Army-Navy Aeronautical Standard Drawing AN 5544). Nov 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 81295. U. S. AERONAUTICAL BOARD. Grip-parachute harness friction. (Army-Navy Aeronautical Standard Drawing AN6518). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26330-R. U. S. AERONAUTICAL BOARD. Guard - two or three position toggle switch shield. (Army-Navy Aeronautical Standard Drawing AN3225). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26689-R5. U. S. AERONAUTICAL BOARD. Indicator-Humidity, large. (Army-Navy Aeronautical Standard Drawing AN7511). Jun 1947. 1 p. Price: Microfilm-$1.00-Photostat-$1.00

PB L 26690-R2. U.S. AERONAUTICAL BOARD. Indicator-humidity (medium), (cancelled 14 Apr 1947, see drawing AN7513) (Army-Navy Aeronautical Standard Drawing AN7512) Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26728-R2. U.S. AERONAUTICAL BOARD. Knockout - threaded taper pin. (Army-Navy Aeronautical Standard Drawing AN8510) Feb 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26188-R3. U. S. AERONAUTICAL BOARD. Light assembly-cabin dome. (Army-Navy Aeronautical Standard Drawing AN3037). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26274-R2. U. S. AERONAUTICAL BOARD. Light assembly - cockpit utility. (Army-Navy Aeronautical Standard Drawing AN3145). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26185-R3. U. S. AERONAUTICAL BOARD. Light assembly - direct instrument. (Army-Navy Aeronautical Standard Drawing AN3034). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85741. U. S. AERONAUTICAL Board. Light assembly-red and clear illumination, dome. (Army-Navy Aeronautical Standard Drawing AN 3400). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26233-R4. U. S. AERONAUTICAL BOARD. Light assembly - tail rudder position. (Army-Navy Aeronautical Standard Drawing AN3091). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26183-R3. U. S. AERONAUTICAL BOARD. Light assembly - wing position recessed. (Army-Navy Aeronautical Standard Drawing AN3032). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26184-R5. U. S. AERONAUTICAL BOARD. Light assembly-wing position, wing tip. (Army-Navy Aeronautical Standard Drawing AN 3033). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26198-R3. U. S. AERONAUTICAL BOARD. Light assembly - work table. (Army-Navy Aeronautical Standard Drawing AN3047). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26454-R5. U.S. AERONAUTICAL BOARD. Nut-propeller hub retaining (non-controllable type). (Army Navy Aeronautical Standard Drawing AN5011). Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26099-R6. U.S. AERONAUTICAL BOARD. Plug-square head pipe thread. (Army-Navy Aeronautical Standard Drawing AN913). Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 86478. U.S. AERONAUTICAL BOARD. Pointers-standard design of aircraft instrument. (Army-Navy Aeronautical Standard Drawing (Design) AND 10404). Nov. 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26567-R. U. S. AERONAUTICAL BOARD. Regulator assembly - demand oxygen, (inactive for new design 20 Mar 47). (Army-Navy Aeronautical Standard Drawing AN6022) Mar 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26227-R2. U.S. AERONAUTICAL BOARD. Regulator generator voltage, (cancelled 17 April 1947) (Army-Navy Aeronautical Standard Drawing AN3080) Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26344-R2. U. S. AERONAUTICAL BOARD. Relay - 55 AMP 2 PST. (Army-Navy Aeronautical Standard Drawing AN3352). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26347-R2. U. S. AERONAUTICAL BOARD. Relay - 100 AMP 2 PST. (Army-Navy Aeronautical Standard AN3362). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26351-R2. U. S. AERONAUTICAL BOARD. Relay - 200 AMP 2 PST. (Army-Navy Aeronautical Standard Drawing AN3372). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 81292. U. S. AERONAUTICAL BOARD. Ring-parachute harness quick fit "V". (Army-Navy Aeronautical Standard Drawing AN6508). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 25966-R. U. S. AERONAUTICAL BOARD. Screw-100° flat head (structural). (Army-Navy Aeronautical Standard Drawing AN 509). Jul 1947. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26047-R5. U.S. AERONAUTICAL BOARD. Sleeve-coupling. (Partial revision to PB 26047). (Army-Navy Aeronautical Standard Drawing AN 819). Dec 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 81291. U. S. AERONAUTICAL BOARD. Snap-coiled spring type parachute. (Army-Navy Aeronautical Standard Drawing AN6516). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 81290. U. S. AERONAUTICAL BOARD. Snap-parachute harness quick fit. (Army-Navy Aeronautical Standard Drawing AN6509). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26321-R. U. S. AERONAUTICAL BOARD. Switch - class C limit. (Army-Navy Aeronautical Standard Drawing AN 3215). Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 25981-R2. U. S. AERONAUTICAL BOARD. Terminal-double shank ball end cable (for swaging). (Army-Navy Aeronautical Standard Drawing AN 663). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 25982-R2. U. S. AERONAUTICAL BOARD. Terminal-single shank ball end cable (for swaging). (Army-Navy Aeronautical Standard Drawing AN 664). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86477. U.S. AERONAUTICAL BOARD. Thermocouple-aircraft engine gasket type. (Army-Navy Aeronautical Standard Drawing AN 5540). Dec 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26483-S. U.S. AERONAUTICAL BOARD. Thermocouple-engine cylinder bayonet type. (Supplement to PB 26483). (Army-Navy Aeronautical Standard Drawing AN 5541). Dec.1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 85742. U. S. AERONAUTICAL BOARD. Valve - hydraulic shuttle, 3000 PSI (internal thread tube fitting outlet). (Army-Navy Aeronautical Standard Drawing AN 6277). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86479. U.S. AERONAUTICAL BOARD. Valve - hydraulic shuttle 3000 PSI (Universal and Internal thread fitting outlet). (Army-Navy Aeronautical Standard Drawing AN 6278). Nov 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 86496. U.S. AERONAUTICAL BOARD. Valve-in line type 16 GPM hydraulic directional control. (Army-Navy Aeronautical Standard Drawing AN 6212). Dec 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 81297. U. S. AERONAUTICAL BOARD. Valve - low pressure oxygen check (style F). (Army-Navy Aeronautical Standard Drawing AN6035). Jan 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26568-R3. U. S. AERONAUTICAL BOARD. Valve-low pressure oxygen filler. (Army-Navy Aeronautical Standard Drawing AN 6024). Sep 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26750-R. U. S. AERONAUTICAL BOARD. Bosses-standard dimensions for external pipe thread. (Army-Navy Aeronautical Standard Drawing (Design) AND10052). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26769-R. U.S. AERONAUTICAL BOARD. Fitting end - standard dimensions for taper pipe thread. (Army-Navy Aeronautical Standard Drawing (Design) AND10077). Apr 1947. 1 p. Price: Microfilm-$1.00 Photostat-$1.00.

PB L 26776-R2. U. S. AERONAUTICAL BOARD. Flange-standard dimensions for hose connection. (Army-Navy Aeronautical Standard Drawing (Design) AND10084). Jul 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26838-R2. U. S. AERONAUTICAL BOARD. Fuel pump installation clearance-aircraft engine. (Army-Navy Aeronautical Standard Drawing (Design) AND 10320). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 81296. U.S. AERONAUTICAL BOARD. Installation clearance - type XX drive propeller governor. (Army-Navy Aeronautical Standard Drawing (Design) AND10334). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26831-R. U. S. AERONAUTICAL BOARD. Propeller governor installation clearance-aircraft engine (1) (for engines of 1000 take off HP and over). (Army-Navy Aeronautical Standard Drawing (Design) AND 10307). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80781. U. S. AERONAUTICAL BOARD. Shaft ends-propeller. (Army-Navy Aeronautical Standard Drawing (Design) AND10152 sheet 1 of 10 sheets). Feb 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26827-R2. U. S. AERONAUTICAL BOARD. Starter installation clearance-aircraft reciprocating engine (for class B and C starters). (Army-Navy Aeronautical Standard Drawing (Design) AND10303). Dec 1946. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 26868-R5. U.S. AERONAUTICAL BOARD. Thermocouple leads - iron-constantan, installation of. (Partial revision to PB 26868). (Army-Navy Aeronautical Standard Drawing (Design) AND 10406). Dec 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 80779. U. S. AERONAUTICAL BOARD. Tolerances - alloy steel sheet and strip. (Army-Navy Aeronautical Standard Drawing (Design) AND10367 sheets 1 and 2). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26848-R. U. S. AERONAUTICAL BOARD. Tolerances - round welded steel tubing. (Army-Navy Aeronautical Standard Drawing (Design) AND10365). Jun 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80780. U. S. AERONAUTICAL BOARD. Tolerances - seamless alloy steel tubing. (Army-Navy Aeronautical Standard Drawing (Design) AND 10368). Jul 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85740. U. S. AERONAUTICAL BOARD. Transmitter installation clearance - fuel and oil pressure. (Army-Navy Aeronautical Standard Drawing (Design) AND 10341). Aug 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86474. U. S. AERONAUTICAL BOARD. Base assembly; Generator voltage regulator. (Army-Navy Aeronautical Specification AN-B-30). Nov 1947. 12 p. Price: Microfilm-$1.25 - Photostat-$2.00.

PB L 23834-R. U. S. AERONAUTICAL BOARD. Bill of materials; aircraft and aeronautical equipment (production contracts). (Supersedes specification AN-B-11, Apr 8, 1946). (Army-Navy Aeronautical Specification AN-B-28). Aug 1947. 10 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 85743. U. S. AERONAUTICAL BOARD. Brake systems; aircraft, design of. (Supersedes specification AN-B-2, Apr 23, 1942). (Army-Navy Aeronautical Specification AN-B-2a). Aug 1947. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21270-A3. U. S. AERONAUTICAL BOARD. Coating; permanent resin (for internal engine parts). (Supersedes all amendments). (Army-Navy Aeronautical Specification AN-C-148). Sep 1947. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86476. U.S. AERONAUTICAL BOARD. Coating; Permanent resin (for internal engine parts). (Supersedes ANA Bulletin 273a). (Army-Navy Aeronautical Specification AN-C-148; Army-Navy Aeronautical Bulletin 273b). Nov 1947. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 21295-A. U. S. AERONAUTICAL BOARD. Compound; protective plastic stripping (sprayable). (Amendment 1 to PB 21295). (Army-Navy Aeronautical Specification AN-C-145). Sep 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21303-A4. U. S. AERONAUTICAL BOARD. Conduit; flexible, shielded, aluminum alloy. (Army-Navy Aeronautical Specification AN-WW-C-566, Amendment No. 4). Jun 1947. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80773. U. S. AERONAUTICAL BOARD. Copper, beryllium; Bar, rod and wire. (Army-Navy Aeronautical Specification AN-C-166). Jun 1947. 11 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21320-R. U. S. AERONAUTICAL BOARD. Couplings; Hydraulic self-sealing. (Supersedes specification AN-C-65, August 6, 1942). (Army-Navy Aeronautical Specification AN-C65a). Jun 1947. 13 p. Price: Microfilm-$1.00. Photostat-$1.00

PB L 21327-R. U. S. AERONAUTICAL BOARD. Cylinders; pneumatic life vest CO_2 gas filled. (Supersedes specification AN-C-105, June 24, 1943). (Army-Navy Aeronautical Specification AN-C-105a). Jan 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86077. U. S. AERONAUTICAL BOARD. Dielectric plastic; polyethylene. (Army-Navy Aeronautical Specification AN-D-19). Jul 1947. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21347A. U. S. AERONAUTICAL BOARD. Electrodes; Mild and alloy steel welding. (Army-Navy Aeronautical Specification AN-E-9, Amendment 1). Jun 1947. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21353-R. U. S. AERONAUTICAL BOARD. Engines, preparation for storage and shipment of aircraft reciprocating. (Supersedes specification AN-E-11, Jul 7, 1945). (Army-Navy Aeronautical Specification AN-E-11a). Jul 1947. 13 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86475. U. S. AERONAUTICAL BOARD. Film; Aerial photographic. (Supersedes ANA Bulletin 252). (Army-Navy Aeronautical Specification AN-F-40; Army-Navy Aeronautical Bulletin 252a). Nov 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 80793-A. U. S. AERONAUTICAL BOARD. Fittings; method of testing tube, (amendment 1 to PB 80793). (Army-Navy Aeronautical Specification AN-F-47, Amendment 1). Jul 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80775. U. S. AERONAUTICAL BOARD. Fluid; Reference, shear stability. (Army-Navy Aeronautical Specification AN-F-53). Jun 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21386-R. U. S. AERONAUTICAL BOARD. Fuel; aircraft engine, general specification (method for knock-test). (Supersedes specification AN-F-19 Jan 15, 1945). (Army-Navy Aeronautical Specification AN-F-19a). Aug 1947. 12 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80774. U. S. AERONAUTICAL BOARD. Fuses; Automatic quantity measuring hydraulic. (Army-Navy Aeronautical Specification AN-F-52). Jun 1947. 17 p. Price: Microfilm-$1.00 - Photostat-$2.00

PB L 21397-R. U. S. AERONAUTICAL BOARD. Generators; aircraft, engine driven, 30 volt, DC. (Supersedes specification AN-G-1, Mar 18, 1943). (Army-Navy Aeronautical Specification AN-G-1a). Sep 1947. 18 p. Price: Microfilm-$1.00 - Photostat-$2.00

PB L 21405-R. U. S. AERONAUTICAL BOARD. Grease; general purpose aircraft lubricating. (Supersedes specification Mar 9, 1945). (Army-Navy Aeronautical Specification AN-G-15a). Sep 1947. 14 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21409-R. U. S. AERONAUTICAL BOARD. Grommets; elastic, hot oil and coolant resistant. (Supersedes Specification AN-G-21, Sep 17, 1943). (Army-Navy Aeronautical Specification AN-G-21a). Aug 1947. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21420-R. U. S. AERONAUTICAL BOARD. Hose; Aircraft (fuel, oil, coolant, water and alcohol). (Supersedes specification AN-H-26. NN-ZZ-H 456a). (Army-Navy Aeronautical Specification AN-H-35). May 1947. 10 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21419-A2. U. S. AERONAUTICAL BOARD. Hose; Medium high pressure hydraulic. (Supersedes all amendments to PB 21419). (Army-Navy Aeronautical Specification AN-H-2ha, amendment 2). Sep 1947. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86072. U. S. AERONAUTICAL BOARD. Insignia; national aircraft. (Supersedes specification AN-I-9b, Aug 14, 1943). (Army-Navy Aeronautical Specification AN-I-9c). Aug 1947. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21451-R. U. S. AERONAUTICAL BOARD. Interference limits; aircraft installations radio. (Supersedes specification AN-I-24, Jul. 28, 1944). (Army-Navy Aeronautical Specification AN-I-24a). Jul 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86075. U. S. AERONAUTICAL BOARD. Interference limits; propeller systems radio. (Army-Navy Aeronautical Specification AN-I-40). Aug 1947. 15 p. Price: Microfilm-$1.25 - Photostat-$2.00

PB L 21453-A. U. S. AERONAUTICAL BOARD. Inverters; rotary. (Amendment 1 to PB 21453). (Army-Navy Aeronautical Specification AN-I-10A, Amendment 1). Sep 1947. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21465-A2. U. S. AERONAUTICAL BOARD. Knobs; pointer. (Supersedes specification amendment 1). (Army-Navy Aeronautical Specification AN-K-3a). Sep 1947. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21467-R. U. S. AERONAUTICAL BOARD. Lacquer; cellulose nitrate. (Supersedes specification AN-L-29, Nov 16, 1947). (Army-Navy Aeronautical Specification AN-L-29a). Aug 1947. 12 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 86076. U. S. AERONAUTICAL BOARD. Lacquer; clear, aluminum clad aluminum alloy surfaces. (Army-Navy Aeronautical Specification AN-L-37). Sep 1947. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21482-R. U. S. AERONAUTICAL BOARD. Lamp assembly; Runway marker (for snow areas). (Supersedes AN-L-26a February 2, 1945). (Army-Navy Aeronautical Specification AN-L-26b). May 1947. 21 p. Price: Microfilm-$1.00 Photostat-$1.00

PB L 80772. U. S. AERONAUTICAL BOARD. Leather; Full chrome tanned sheepskin. (Army-Navy Aeronautical Specification AN-L-36). May 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21494-R2. U. S. AERONAUTICAL BOARD. Lubrication of aircraft; General specification for. (Supersedes specification AN-L-32, 12 September 1945). (Army-Navy Aeronautical Specification AN-L-32a). Jun 1947. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00

CHEMICALS AND ALLIED PRODUCTS

PB L 25616. I. G. FARBENINDUSTRIE A. G. Patent applications, or abstracts of patent applications, which were found to be missing from the original Hoechst collection. (FIAT Microfilm Reel Patents 172, Frames 1-1453) 1931-1944. 1169 f. Price: Microfilm-$6.00- Enlargement Print-$117.00
The 590 individual items of this FIAT microfilm reel are listed below. They will be available as enlargement prints. Please give the above PB numbers and the frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
	Index to applications in this reel. In German. Frames 1-729 are a continuation of Ludwigshafen patent applications from FIAT Microfilm Reel Patents 171 (PB L 25615). Other Ludwigshafen patents are on Frames 1345-1453. Many of the applications are in abstract form only.	$7.50
1 PB L 25616	Production of aliphatic fluorine compounds. Ger. patent application I 48156/120c, dated Oct 20, 1944. In German.	1.50
2 PB L 25616	Determining presence of beta, beta-dihalogendiethylsulfide. Ger. patent application L 48861/421, dated Jan 24, 1934. In German.	1.50
3 PB L 25616	Detection medium for chemical warfare agents. Ger. patent application I 48860/78d, dated Jan 24, 1934. In German.	1.50
4 PB L 25616	Filter material. Ger. patent application I 49004/12e, dated Jan 12, 1934. In German.	1.50
5 PB L 25616	Gas protection device. Ger. patent application I 49077/61a, dated Feb 23, 1934. In German.	1.50
6-7 PB L 25616	Production of a high-grade anti-knock motor fuel. Ger. patent application I 49857/120, dated Jun 7, 1934. In German.	1.50
8 PB L 25616	Production of alkylene fluorohydrins. Ger. patent application I 50120/120, dated Jul 10, 1934. In German.	1.50
9 PB L 25616	Production of chlorination products of ketones of the general formula $R.CO.R_1$. Ger. patent application I 50758/120 3, dated Oct 13, 1934. In German.	1.50
10 PB L 25616	Production of thioglycols. Ger. patent application G 80382/120, dated Aug 7, 1931. In German.	1.50
11 PB L 25616	Chemical warfare agents. Ger. patent application I 52905/78d, dated Jul 27, 1935. In German.	1.50
12 PB L 25616	Process for the catalytic production of hydrogen sulfide. Ger. patent application I 55230/121, dated Jun 12, 1936. In German.	1.50
13 PB L 25616	Anti-knock fuels. Ger. patent application I 55874/46a, dated Sep 3, 1936. In German.	1.50
14 PB L 25616	Anti-knock fuels. Ger. patent application I 55920/46a, dated Sep 9, 1936. In German.	1.50
15 PB L 25616	Production of high-grade lubricating oils. Ger. patent application I 57821/120, dated Apr 24, 1937. In German.	1.50
16 PB L 25616	Lubricating oils. Ger. patent application I 57819/120, dated Apr 24, 1937. In German.	1.50
17 PB L 25616	Production of high-grade lubricating oils. Ger. patent application I 57820/120, dated Apr 24, 1937. In German.	1.50
18 PB L 25616	Production of alpha-substituted acroleins. Ger. patent application I 58155/120, dated Jun 2, 1937. In German.	1.50
19 PB L 25616	Production of thionyl chloride. Ger. patent application I 59200, dated Oct 1, 1937. In German.	1.50
20 PB L 25616	Recovery of thionyl chloride from its mixtures with higher sulfur chlorides. Ger. patent application 60237/121, dated Jan 14, 1938. In German.	1.50
21 PB L 25616	Production of gas-protecting agents. Ger. patent application I 60390/61b, dated Feb 1, 1938. In German.	1.50
22 PB L 25616	Recovery of vanadium or its alloys or compounds from vanadium-containing crude oil residues. Ger. patent application I 60458/121, dated Feb 8, 1938. In German.	1.50
23 PB L 25616	Explosives. Ger. patent application I 60541/78c, dated Feb 17, 1938. In German.	1.50
24 PB L 25616	Pressure fluids for machines. Ger. patent application I 60542/23o, dated Feb 17, 1938. In German.	1.50
25 PB L 25616	Explosives. Ger. patent application I 60595/78c, dated Feb 22, 1938. In German.	1.50
26 PB L 25616	Production of trimethylene trinitramine. Ger. patent application I 60615/12p, dated Feb 23, 1938. In German.	1.50
27 PB L 25616	Production of nitrocellulose. Ger. patent application I 60740/78c, dated Mar 8, 1938. In German.	1.50
28 PB L 25616	Explosives containing mixtures of acetonitrile and concentrated nitric acid. Ger. patent application I 60793/78c, dated Mar 11, 1938. In German.	1.50
29 PB L 25616	Explosives (Safety). Ger. patent application I 60851/78c, dated Mar 17, 1938. In German.	1.50
30 PB L 25616	Production of low-melting chemical warfare agents. Ger. patent application I 60888/78d, dated Mar 24, 1938. In German.	1.50
31 PB L 25616	Production of trimethylene trinitramine. Ger. patent application I 61148/12p, dated Apr 22, 1938. In German.	1.50
32 PB L 25616	Process for the operation of Diesel engines. Ger. patent application I 57877/46a, dated Apr 30, 1937. In German.	1.50
33 PB L 25616	Anti-knock fuels. Ger. patent application I 61156/46a, dated Apr 24, 1938. In German.	1.50
34 PB L 25616	Operation of Diesel engines. Ger. patent application I 61157/46a, dated Apr 26, 1938. In German.	1.50

35 PB L 25616 **Operation of injection engines with highly viscous fuels.** Ger. patent application I 61178/46c, dated Apr 28, 1938. In German. 1.50

36 PB L 25616 **Fuel for internal combustion engines, especially Diesel oil.** Ger. patent application U 13041/46a, dated Jul 13 1935. In German. 1.50

37 PB L 25616 **Motor fuel.** Ger. patent application I 61221/78d, dated May 4, 1938. In German. 1.50

38 PB L 25616 **Production of self-igniting substances.** Ger. patent application I 61439/78d, dated May 25, 1938. In German. 1.50

39 PB L 25616 **Production of self-igniting coal.** Ger. patent application 61440/121, dated May 5, 1938. In German. 1.50

40 PB L 25616 **Process for the drying, withering, evaporating, emulsifying, atomizing and splitting of substances.** Ger. patent application I 61441/12g, dated May 25, 1938. In German. 1.50

41-42 PB L 25616 **Production of lubricants.** Ger. patent application I 61463/120, dated May 25, 1938. In German. 1.50

43 PB L 25616 **Production of lubricants.** Ger. patent application I 61464/120, dated May 25, 1938. In German. 1.50

44 PB L 25616 **Production of 1,3-dichloro-4-hydroxy-2-butene.** Ger. patent application I 61962/120, dated Jul 16, 1938. In German. 1.50

45 PB L 25616 **Production of lubricants.** Ger. patent application I 62299/120, dated Aug 24, 1938. In German. 1.50

46 PB L 25616 **Explosives.** Ger. patent application I 62395/78c, dated Sep 3, 1938. In German. 1.50

47 PB L 25616 **Process for obtaining helium and neon.** Ger. patent application I 62481/121, dated Sep 19, 1938. In German. 1.50

48 PB L 25616 **Production of methylol compounds.** Ger. patent application I 62558/120, dated Sep 30, 1938. In German. 1.50

49 PB L 25616 **Production of alpha-substituted acroleins.** Ger. patent application I 62559/120, dated Sep 30, 1938. In German. 1.50

50 PB L 25616 **Production of aliphatic halogen-containing dialkyl sulfides.** Ger. patent application I 62651/120, dated Oct 14, 1938. In German. 1.50

51 PB L 25616 **Prevention of icing.** Ger. patent application I 62795/22g, dated Nov 11, 1938. In German. 1.50

52 PB L 25616 **Generation of high temperatures.** Ger. patent application I 62937/10b, dated Nov 21, 1938. In German. 1.50

53 PB L 25616 **Self-sealing fuel tanks.** Ger. patent application I 63025/62c, dated Nov 30, 1938. In German. 1.50

54 PB L 25616 **Dehydrocondensation of gaseous methane homologues.** Ger. patent application I 63316/120, dated Dec 27, 1938. In German. 1.50

55 PB L 25616 **Production of trimethylene trinitramine.** Ger. patent application I 63385/12p, dated Dec 31, 1938. In German. 1.50

56 PB L 25616 **Improving agent of the fuel rating.** Ger. patent application I 63485/46a, dated Jan 13, 1939. In German. 1.50

57 PB L 25616 **Production of trimethylene trinitramine.** Ger. patent application I 63418/12p, dated Jan 6, 1939. In German. 1.50

58 PB L 25616 **Process for producing trimethylene trinitramine.** Ger. patent application I 63488/12, dated Jan 13, 1939. In German. 1.50

59 PB L 25616 **Fuel for carburetor engines.** Ger. patent application I 63525/46a, dated Jan 18, 1939. In German. 1.50

60-61 PB L 25616 **Protective agents against poison gases and chemical warfare agents, consisting of or containing superpolyamides.** Ger. patent application I 63703/61b, dated Feb 6, 1939. In German. 1.50

62 PB L 25616 **Toluene by treating phtalic acid.** Ger. patent application I 63728/120, dated Feb 8, 1939. In German. 1.50

63 PB L 25616 **Production of trimethylene trinitramine.** Ger. patent application I 63813/12p, dated Feb 17, 1939. In German. 1.50

64 PB L 25616 **Production of toluene.** Ger. patent application I 63899/120, dated Feb 22, 1939. In German. 1.50

65 PB L 25616 **Trimethylene trinitramine.** Ger. patent application I 63950/12p, dated Mar 2, 1939. In German. 1.50

66 PB L 25616 **Production of trimethylene trinitramine.** Ger. patent application I 64223/12p, dated Mar 31. 1939. In German. 1.50

67 PB L 25616 **Production of trimethylene trinitramine.** Ger. patent application I 64415/12p, dated Apr 26, 1939. In German. 1.50

68 PB L 25616 **Trimethylene trinitramine.** Ger. patent application I 64416/12p, dated Apr 26, 1939. In German. 1.50

69 PB L 25616 **Production of electrical fusion products.** Ger. patent application I 64647/12c, dated May 20, 1939. In German. 1.50

70 PB L 25616 **Explosive.** Ger. patent application I 65031/78c, dated Jul 6, 1939. In German. 1.50

71 PB L 25616 **Anti-knock fuel, especially for quick-heating engines.** Ger. patent application I 65181/46a, dated Jul 21, 1939. In German. 1.50

72 PB L 25616 **Treatment of cobalt-copper-mats or cobalt-nickel-copper mats.** Ger. patent application I 65300/40a, dated Jul 28, 1939. In German. 1.50

73 PB L 25616 **Neutralisation of chemical warfare agents capable of liberating halogen.** Ger. patent application I 65371/61b, dated Aug 7, 1939. In German. 1.50

74 PB L 25616 **Production of alpha-substituted acroleins.** Ger. patent application I 65479/120, dated Aug 23, 1939. In German. 1.50

75 PB L 25616 **Production of trimethylene trinitramine.** Ger. patent application I 65507/12p, dated Aug 26, 1939. In German. 1.50

76 PB L 25616 **High-pressure vessels.** Ger. patent application I 65553/17g, dated Aug 31, 1939. In German. 1.50

77 PB L 25616 — Process for operating injection engines. Ger. patent application I 65566/46a, dated Sep 7, 1939. In German. 1.50

78-79 PB L 25616 — Process for producing oil-like ester. Ger. patent application I 65567/120, dated Sep 7, 1939. In German. 1.50

80 PB L 25616 — Lacquering of ballat mantles. Ger. patent application I 65630/75c, dated Sep 16, 1939. In German. 1.50

81 PB L 25616 — Increasing the plasticity of rubber-like emulsion polymerization products. Ger. patent application I 65660/39b, dated Sep 20, 1939. In German. 1.50

82 PB L 25616 — Production of lost-proof sheets (packing material) Ger. patent application I 65793/61b, dated Oct 14, 1939. In German. 1.50

83 PB L 25616 — Insulating material. Ger. patent application I 65803/21c, dated Oct 26, 1939. In German. 1.50

84 PB L 25616 — Production of di and tri-alkyl benzene hydrocarbons. Ger. patent application I 66850/120, dated Oct 26, 1939. In German. 1.50

85 PB L 25616 — Pilot balloons and sounding balloons. Ger. patent application I 65919/62a, dated Nov 3, 1939. In German. 1.50

86 PB L 25616 — Production of self-ignition coal. Ger. patent application I 65969/121, dated Nov 20, 1939. In German. 1.50

87 PB L 25616 — High-pressure vessel. Ger. patent application I 66140/17g, dated Dec 13, 1939. In German. 1.50

88 PB L 25616 — Materials absorbing sound and super-sonic waves. Ger. patent application I 66142/37b, dated Dec 16, 1939. In German. 1.50

89 PB L 25616 — Covering from sound absorbing materials. Ger. patent application I 66143/37b, dated Dec 16, 1939. In German. 1.50

90 PB L 25616 — Protection agent against poison gases and chemical warfare agents, consisting of or containing high polymeric urethanes. Ger. patent application I 64933/61b, dated Jun 26, 1939. In German. 1.50

91 PB L 25616 — Production of active substances by the effect of oxygen-containing gases or vapors. Ger. patent application I 66185/12i, dated Dec 21, 1939. In German. 1.50

92 PB L 25616 — Production of ketones. Ger. patent application I 66193/120, dated Jan 22, 1939. In German. 1.50

93 PB L 25616 — Process for the cracking and aromatizing pressure hydrogenation of hydrocarbon oils having a boiling range similar to that of middle oils. Ger. patent application I 63659/12o, dated Jan 31, 1939. In German. 1.50

94 PB L 25616 — Dehydrogenation of gaseous methane homologues. Ger. patent application I 63316/12o, dated Dec 27, 1938. In German. 1.50

95 PB L 25616 — Production of coatings on flexible surfaces. Ger. patent application I 66218/22g, dated Dec 28, 1939. In German. 1.50

96 PB L 25616 — Cover for high-pressure vessels. Ger. patent application I 66235/17g, dated Jan 3, 1940. In German. 1.50

97-98 PB L 25616 — Production of anti-knock, stable gasolines (Aviation gasoline). Ger. patent application I 66305/23b, dated Jan 18, 1940. In German. 1.50

99 PB L 25616 — Regeneration of a stationary catalyst employed for thermal conversion (cracking, reforming) of hydrocarbons. Ger. patent application I 66321/23b, dated Jan 20, 1940. In German. 1.50

100 PB L 25616 — Use of magnesium lacquers with azo dyestuffs. Ger. patent application I 66371/120, dated Jan 27, 1939. In German. 1.50

101 PB L 25616 — Production of a medium improving the fuel rating of motor fuels. Ger. patent application I 66372/120, dated Jan 27, 1940. In German. 1.50

102 PB L 25616 — High-pressure vessel according to O.Z.10.554 and add. patents. Ger. patent application I 66393/17g, dated Jan 29, 1940. In German. 1.50

103 PB L 25616 — Production of sulfur dichlorides. Ger. patent application I 66304/121, dated Jan 18, 1940. In German. 1.50

104 PB L 25616 — Spooling device for metal bands. Ger. patent application I 66428/7b, dated Feb 5, 1940. In German. 1.50

105 PB L 25616 — High-pressure cylinders and accessories. Ger. patent application I 66481/17g, dated Feb 15, 1940. In German. 1.50

106 PB L 25616 — High-pressure vessels. Ger. patent application I 66482/17g, dated Feb 15, 1940. In German. 1.50

107 PB L 25616 — Production of anti-knock hydrocarbons. Ger. patent application I 66544/12o, dated Feb 23, 1940. In German. 1.50

108 PB L 25616 — Iso-octane. Ger. patent application I 66574/120, dated Feb 23, 1940. In German. 1.50

109 PB L 25616 — Conversion of phosgene and per substances into highly viscous or solid form. Ger. patent application I 66613/12o, dated Mar 5, 1940. In German. 1.50

110 PB L 25616 — Production of anti-knock gasolines. Ger. patent application I 66625/23b, dated Mar 8, 1940. In German. 1.50

111 PB L 25616 — Production of pure thionyl chloride. Ger. patent application I 66638/121, Mar 9, 1940. In German. 1.50

112 PB L 25616 — Covering made of sound absorbing material. Ger. patent application I 66717/42g, dated Mar 21, 1940. In German. 1.50

113 PB L 25616 — Covering made of sound absorbing material. Ger. patent application I 66718/42g, dated Mar 21, 1940. In German. 1.50

114 PB L 25616 — Process for cracking pressure hydrogenation. Ger. patent application I 66701/12o, dated Mar 19, 1940. In German. 1.50

115 PB L 25616 — Improvement of crack gasolines. Ger. patent application I 66708/12o, dated Mar 20, 1940. In German. 1.50

116 PB L 25616 — Fuel for high-efficiency engines. Ger. patent application I 66760/46a, Mar 30, 1940. In German. 1.50

117 PB L 25616 **Production of shapes from sulfur-containing nickel powder.** Ger. patent application I 66827/40b, dated Apr 8, 1940. In German. 1.50

118 PB L 25616 **Production of dithioglycol.** Ger. patent application I 66836/12o, datdd Apr 8, 1940. In German. 1.50

119 PB L 25616 **Fuels for compression ignition engines.** Ger. patent application I 66826/46a, dated Apr 11, 1940. In German. 1.50

120 PB L 25616 **Protection agent against poison gases and chemical warfare agents.** Ger. patent application I 66834/61b, dated Apr 12, 1940. In German. 1.50

121 PB L 25616 **Process for automatic release of certain procedures at a given time.** Ger. patent application I 66847/721, dated Apr 17, 1940. In German. 1.50

122 PB L 25616 **Oxidation of benzene homologues with at least 2 carbon atoms in the side chain.** Ger. patent application I 66864/12o, dated Apr 18, 1940. In German. 1.50

123 PB L 25616 **Production of anti-knock motor fuels.** Ger. patent application I 66987/23b, dated May 3, 1940. In German. 1.50

124 PB L 25616 **Use of mixtures of liquid olefine polymers.** Ger. patent application I 66940/46a, dated May 6, 1940. In German. 1.50

125 PB L 25616 **Production of coatings resisting to alkaline substances.** Ger. patent application I 67001/75c, dated May 10, 1940. In German. 1.50

126 PB L 25616 **Production of high-grade hydrocarbons.** Ger. patent application I 67015/12o, dated May 17, 1940. In German. 1.50

127 PB L 25616 **Depolymerisation of olefine polymers.** Ger. patent application I 67080/12o, dated May 27, 1940. In German. 1.50

128 PB L 25616 **Production of anti-knock motor fuels.** Ger. patent application I 67132/12o, dated Jun 3, 1940. In German. 1.50

129 PB L 25616 **Production of anti-knock motor fuels from middle oils.** Ger. patent application I 67151/12o, dated Jun 5, 1940. In German. 1.50

130-131 PB L 25616 **Production of oxidation preventives from conversion products of alkylated phenols with sulfur halides.** Ger. patent application I 67154/12q, dated Jun 8, 1940. In German. 1.50

132-133 PB L 25616 **Production of alkylated, aromatic hydrocarbons, particularly alkylbenzenes, with two or more alkyl groups each of which contains at least 2 C atoms.** Ger. patent application I 67280/12o, dated Jun 27, 1940. In German. 1.50

134 PB L 25616 **Chemical warfare agents.** Ger. patent application I 67339/78d, dated Jul 4, 1940. In German. 1.50

135 PB L 25616 **Lubricants.** Ger. patent I 67340/23c, dated Jul 8,1940. In German. 1.50

136 PB L 25616 **Pressure transmitting agents.** Ger. patent application I 67391/23c, dated Jul 9, 1940. In German. 1.50

137 PB L 25616 **Production of knock resistant hydrocarbon mixtures.** Ger. patent application I 67348/23b, dated Jul 10, 1940. In German. 1.50

138-139 PB L 25616 **Production of masses which are self inflammable in the air and produce high temperatures when in contact with water.** Ger. patent application I 67428/78d, dated Jul 20, 1940. In German. 1.50

140 PB L 25616 **Production of knock resistant motor fuels from olefins.** Ger. patent application I 67516/120, dated Jul 30, 1940. In German. 1.50

141 PB L 25616 **Production of trimethylenetrinitramine.** Ger. patent application I 67611/12p, dated Aug 13, 1940. In German. 1.50

142 PB L 25616 **Production of trimethylenetrinitramine.** Ger. patent application I 67628/12p, dated Aug 14, 1940. In German. 1.50

143 PB L 25616 **Production of trimethylenetrinitramine.** Ger. patent application I 67645/12p, dated Aug 16, 1940. In German. 1.50

144 PB L 25616 **Production of trimethylenetrinitramine.** Ger. patent application I 67646/12p, dated Aug 16, 1940. In German. 1.50

145 PB L 25616 **Coating from sound-absorbing materials.** Ger. patent application I 67711/42g, dated Aug 27, 1940. In German. 1.50

146 PB L 25616 **Production of anti-knock motor fuels.** Ger. patent application I 67761/12o, dated Aug 4, 1940. In German. 1.50

147 PB L 25616 **Production of knock resistant motor fuels.** Ger. patent application I 67816/12o, dated Sep 12, 1940. In German. 1.50

148 PB L 25616 **Impregnating or coating of fibrous materials.** Ger. patent application I 67875/55f, dated Sep 19, 1940. In German. 1.50

149 PB L 25616 **Process for producing masses which produce high temperatures when in contact with water.** Ger. patent application I 67980/78d, dated Sep 27, 1940. In German. 1.50

150 PB L 25616 **Use of organic or inorganic transparent glass.** Ger. patent application I 67924/22g, dated Sep 27, 1940. In German. 1.50

151 PB L 25616 **Process for catalytic production of dimethylamine.** Ger. patent application I 68075/12q, dated Oct 19, 1940. In German. 1.50

152 PB L 25616 **Production of solid catalysts containing phosphoric acid.** Ger. patent application I 68066/12g, dated Oct 23, 1940. In German. 1.50

153 PB L 25616 **Development of the process for the production of trimethylenetrinitramine.** Ger. patent application I 68067/12p, dated Oct 23, 1940. In German. 1.50

154 PB L 25616 **Fuel for high efficiency engines.** Ger. patent application I 68118/46a, dated Oct 30, 1940. In German. 1.50

155 PB L 25616 **Process for producing masses which produce high temperatures when in contact with air or water.** Ger. patent application I 68138/78d, dated Nov 2, 1940. In German. 1.50

156 PB L 25616 **Use of mixtures of liquid polymerisation products as motor fuels.** Ger. patent application I 68134/46a, dated Nov 1, 1940. In German. 1.50

157-158 PB L 25616 **Separation of straight-chain aliphatic compounds containing C atoms of**

straight-chain hydrocarbons containing 6 or more C atoms in the molecule, from liquid organic mixtures. Ger. patent application B 190197/120, dated Mar 18, 1940. In German. 1.50

159-160 PB L 25616 Fuel oil for ships. Ger. patent application I 68241/23b, dated Nov 16, 1940. In German. 1.50

161-162 PB L 25616 Production of lubricant oils. Ger. patent application I 68234/12o, dated Nov 26, 1940. In German. 1.50

163-164 PB L 25616 Process for the catalytic alkylization of aromatic hydrocarbons (benzene, naphthalene and their homologues). Ger. patent application I 68284/12o, dated Nov 26, 1940. In German 1.50

165 PB L 25616 Process for producing pressure-resistant hollow bodies. Ger. patent application I 68263/7b, dated Nov 21, 1940. In German. 1.50

166-167 PB L 25616 Production of aromatic hydrocarbons. Ger. patent application I 68283/120, dated Nov 26, 1940. In German. 1.50

168 PB L 25616 Process for the catalytic alkylation of aromatic hydrocarbons. Ger. patent application I 68284/120, dated Nov 26, 1940. In German. 1.50

169 PB L 25616 Process for the conversion of gaseous carbon. Ger. patent application I 68385/39c, dated Nov 30, 1940. In German. 1.50

170 PB L 25616 Storage tank for liquids. Ger. patent application I 68353/81e, dated Dec 4, 1940. In German. 1.50

171 PB L 25616 Purification of curde phenols. Ger. patent application I 68387/12q, dated Dec 4, 1940. In German. 1.50

172 PB L 25616 Process for measuring paramagnetic components. Ger. patent application I 68402/42 1, dated Dec 6, 1940. In German. 1.50

173 PB L 25616 Process for separating aliphatic oxygen-containing compounds and straight-chain hydrocarbons from mixtures containing same. Ger. patent application I 68403/120, dated Dec 4, 1940. In German. 1.50

174 PB L 25616 Separation of aliphatic compounds. Ger. patent application I 68412/120, dated Dec 5, 1940. In German. 1.50

175 PB L 25616 Fuel oil. Ger. patent application I 68529/23b, dated Dec 24, 1940. In German. 1.50

176-177 PB L 25616 Production of highly knock-resistant motor fuels by alkylation of benzenes containing cyclic hydrocarbons. Ger. patent application I 68540/23b, dated Jan 2, 1941. In German. 1.50

178-181 PB L 25616 Motor fuel. Ger. patent application I 68714/46a, dated Jan 23, 1941. In German. 1.50

182 PB L 25616 Inorganic or organic glass resistant to dimming. Ger. patent application I 68788/22g, dated Feb 1, 1941. In German. 1.50

183 PB L 25616 Production of mist and smoke screens. Ger. patent application I 69033/78d, dated Mar 7, 1941. In German. 1.50

184 PB L 25616 Partial dealkylation of polyalkylbenzenehydrocarbons. Ger. patent application B 185323, dated Nov 19, 1938. In German. 1.50

185 PB L 25616 Production of toluene and benzene from mono or polyalkylbenzene hydrocarbons. Ger. patent application B 188877, dated Oct 18, 1939. In German. 1.50

186 PB L 25616 Reducing the inflammability of wood. Ger. patent application I 69128/22g, dated Mar 8, 1941. In German. 1.50

187 PB L 25616 Further development of the process for producing knock-resistant motor fuels. Ger. patent application I 69052/12o, dated Mar 8, 1941. In German. 1.50

188 PB L 25616 Improving the process for producing knock resistant motor fuels. Ger. I 69053/12o, dated Mar 8, 1941. In German. 1.50

189 PB L 25616 Production of hydrocarbons low in hydrogen especially knock resistant motor fuels. Ger. patent application I 69080/23b, dated Mar 11, 1941. In German. 1.50

190 PB L 25616 Production of hydrocarbons with low hydrogen content, particularly anti-knock fuels. Ger. patent application I 69081/23b, dated Mar 11, 1941. In German. 1.50

191 PB L 25616 Sound and ultra-sound absorbing covering for fixed or mobile bodies in water, which is rib-shaped. Ger. patent application I 69132/42g, dated Mar 17, 1941. In German. 1.50

192 PB L 25616 Production of form piece with sealed-off hollow spaces. Ger. patent application I 69134/42g, dated Mar 18, 1941. In German. 1.50

193 PB L 25616 Prevention of sound wave reflections on bodies in liquid mediums. Ger. patent application I 69133/65a, dated Mar 18, 1941. In German. 1.50

194 PB L 25616 Process for measuring the absorption and reflection coefficients of sound absorbing substances in liquids, by means of sound or ultrasound wave impulses. Ger. patent application I 69160/42g, dated Mar 21, 1941. In German. 1.50

195-196 PB L 25616 Production of knock resistant motor fuels. Ger. patent I 69188/23b, dated Mar 20, 1941. In German. 1.50

197 PB L 25616 Production of hydrocarbons with a low boiling point from such with a high boiling point, by means of pressure hydrogenation. Ger. patent application I 69261/12o, dated Mar 27, 1941. In German. 1.50

198 PB L 25616 Production of a catalyst consisting of alumina and molybdenum oxide. Ger. patent application I 69247/12g, dated Mar 27, 1941. In German. 1.50

199 PB L 25616 Explosive. Ger. patent application I 69234/78c, dated Mar 29, 1941. In German. 1.50

200 PB L 25616 Production of activated alumina. Ger. patent application I 69326/12m, dated Apr 4, 1941. In German. 1.50

201 PB L 25616 Production of wound-up articles. Ger. patent application I 69370/7b, dated Apr 15, 1941. In German. 1.50

202 PB L 25616 Smoke dyestuffs. Ger. patent application I 69412/72g, dated Apr 22, 1941. In German. 1.50

203-204 PB L 25616 **Production of knock resistant motor fuels from gasolines, heavy gasolines or middle oils.** Ger. patent application I 69414/23b, dated Apr 19, 1941. In German. 1.50

205-206 PB L 25616 **Improving the process for producing knock-resistant motor fuels from hydrocarbon oils with high boiling point, by means of catalytic pressure hydrogenation.** Ger. patent application I 69445/12o, dated Apr 26, 1941. In German. 1.50

207 PB L 25616 **Production of valuable hydrocarbons.** Ger. patent application I 69493/12o, dated Apr 28, 1941. In German. 1.50

208 PB L 25616 **Sound and ultrasound absorbing rib-like coverings for fixed or mobile objects in water.** Ger. patent application I 69496/42g, dated May 3, 1941. In German. 1.50

209-210 PB L 25616 **Process for catalytic pressure hydrogenation of coals, tars, mineral oils, and their products of fractional distillation.** Ger. patent application I 69498/12o, dated May 3, 1941. In German. 1.50

211 PB L 25616 **Production of hydrocarbons with low boiling point from those with high boiling point.** Ger. patent application I 69499/12o, dated May 5, 1941. In German. 1.50

212-213 PB L 25616 **Production of knock-resistant motor fuel from gasolines, heavy gasolines, or middle oils.** Ger. patent application I 69500/12o, dated May 5, 1941. In German. 1.50

214-216 PB L 25616 **Production of knock-resistant gasolines from benzenes containing paraffin and naphthene hydrocarbons.** Ger. patent application I 69519/120, dated Apr 6, 1941. In German. 1.50

217 PB L 25616 **Production of cycloparaffins by means of catalytic pressure hydrogenation of cyclopolyolefins.** Ger. patent application I 69547/120, dated May 6, 1941. In German. 1.50

218 PB L 25616 **Production of wound-up articles.** Ger. patent application I 69618/7b, dated May 16, 1941. In German. 1.50

219-220 PB L 25616 **Process for the cracking pressure hydrogenation of heavy and middle oils.** Ger. patent application I 69587/120, dated May 16, 1941. In German. 1.50

221 PB L 25616 **Production of wound-up bodies, particularly "high pressure hollow bodies."** Ger. patent application I 69703/7b, dated May 28, 1941. In German. 1.50

222 PB L 25616 **High efficiency motor fuel.** Ger. patent application I 69712/46a, dated May 31, 1941. In German. 1.50

223 PB L 25616 **Production of nitrocellulose.** Ger. patent application I 69848/78c, dated Jun 19, 1941. In German. 1.50

224 PB L 25616 **Production of nitrocellulose.** Ger. patent application I 69849/78c, dated Jun 19, 1941. In German. 1.50

225-226 PB L 25616 **Use of certain metal compounds as catalysts.** Ger. patent application I 69863/12g, dated Jun 21, 1941. In German. 1.50

227 PB L 25616 **Catalyst.** Ger. patent application I 69863/120, dated Jun 21, 1941. In German. 1.50

228 PB L 25616 **Production of wound-up bodies.** Ger. patent application I 69907/7b, dated Jun 25, 1941. In German. 1.50

229 PB L 25616 **High pressure vessels. Production of pressure resistant hollow bodies.** Ger. patent application I 69971/7b, dated Jul 3, 1941. In German. 1.50

230 PB L 25616 **Alkylation of isoparaffins with olefins.** Ger. patent application I 69936/12o, dated Jul 2, 1941. In German. 1.50

231 PB L 25616 **Production of liquid hydrocarbons suitable as motor fuels.** Ger. patent application I 70033/12o, dated Jul 9, 1941. In German. 1.50

232 PB L 25616 **Production of valuable motor fuels by reacting olefins (with low molecular weight) with isoparaffins (with low molecular weight).** Ger. patent application I 70012/12o, dated Jul 10, 1941. In German. 1.50

233 PB L 25616 **Improvement of gasolines.** Ger. patent application I 70098/46a, dated Jul 24, 1941. In German. 1.50

234-236 PB L 25616 **Production of motor fuels or fuel oils.** Ger. patent application I 70137/12o, dated Jul 31, 1941. In German. 1.50

237-238 PB L 25616 **Modification of the process for the cracking pressure hydrogenation of heavy or middle oils.** Ger. patent application I 70165/120, dated Aug 1, 1941. In German. 1.50

239 PB L 25616 **Production of highly elastic, rubber-like masses.** Ger. patent application I 70149/39b, dated Aug 1, 1941. In German. 1.50

240 PB L 25616 **Production of hydrocarbons bearing several members from carbon monoxide and hydrogen over catalysts.** Ger. patent application I 70230/120, dated Aug 9, 1941. In German. 1.50

241 PB L 25616 **Process for catalytic pressure hydrogenation.** Ger. patent application I 70209/120, dated Aug 13, 1941. In German. 1.50

242 PB L 25616 **Catalysts for pressure hydrogenation.** Ger. patent application I 70211/23b, dated Aug 13, 1941. In German. 1.50

243 PB L 25616 **Apparatus for the electrolysis of molten substances.** Ger. patent application I 70409/40c, dated Sep 9, 1941. In German. 1.50

244 PB L 25616 **Dopes for use in airplanes.** Ger. patent application I 70419/22h, dated Sep 12, 1941. In German. 1.50

245 PB I 25616 **Production of hydrocarbons with a low hydrogen content, particularly knock-resistant motor fuels.** Ger. patent application I 70423/23b, dated Sep 13, 1941. In German. 1.50

246 PB L 25616 **Catalytic alkylation of aromatic hydrocarbons (benzene naphthalene and hydrocarbons).** Ger. patent application I 70436/12o, dated Sep 15, 1941. In German. 1.50

247 PB L 25616 **Production of motor fuels.** Ger. patent application I 70450/12o, dated Sep 16, 1941. In German. 1.50

248 PB L 25616 — Lubricants. Ger. patent application I 70460/23i, dated Sep 19, 1941. In German. 1.50

249 PB L 25616 — Catalytic conversion of carbon monoxide with hydrogen to form liquids and solids containing oxygen. Ger. patent application I 70488/12o, dated Sep 24, 1941. In German. 1.50

250-251 PB L 25616 — Catalytic conversion of carbon monoxide with water to form liquids and solids containing oxygen. Ger. patent application I 70503/12o, dated Sep 25, 1941. In German. 1.50

252 PB L 25616 — Use of resin-like substances as basis for lacquers and impregnating media. Ger. patent application I 70542/22h, dated Oct 1, 1941. In German. 1.50

253-254 PB L 25616 — Production of hydrocarbons with a low boiling point from those with a high boiling point, by means of aluminum chloride catalyst. Ger. patent application I 70613/23b, dated Oct 10, 1941. In German. 1.50

255 PB L 25616 — Production of molded catalysts. Ger. patent application I 70640/12g, dated Oct 15, 1941. In German. 1.50

256 PB L 25616 — Hydrocarbon oils. Ger. patent application I 70655/23c, dated Oct 17, 1941. In German. 1.50

257 PB L 25616 — High pressure vessels. Ger. patent application I 70679/7b, dated Oct 17, 1941. In German. 1.50

258 PB L 25616 — High pressure vessels. Ger. patent application I 70680/7b, dated Oct 17, 1941. In German. 1.50

259 PB L 25616 — Production of trimethylenetrinitramine. Ger. patent application I 70673/12p, dated Oct 20, 1941. In German. 1.50

260 PB L 25616 — Production of phosphorus chloride and thionyl chloride. Ger. patent application I 70732/12i, dated Oct 29, 1941. In German. 1.50

261 PB L 25616 — Surface coloring of cement, concrete, sand-structures, etc. Ger. patent application I 70746/80b, dated Nov 3, 1941. In German. 1.50

262 PB L 25616 — Production of trimethylenetrinitramine. Ger. patent application I 70871/12p, dated Nov 18, 1941. In German. 1.50

263 PB L 25616 — Lubricant. Ger. patent application I 70990/23c, dated Dec 3, 1941. In German. 1.50

264 PB L 25616 — Forged high pressure vessels. Ger. patent application I 71101/17g, dated Dec 15, 1941. In German. 1.50

265-266 PB L 25616 — Production of valuable oils. Ger. patent application I 71122/120, dated Dec 20, 1941. In German. 1.50

267 PB L 25616 — Lubricants. Ger. patent application I 71123/23c, dated Dec 20, 1941. In German. 1.50

268 PB L 25616 — Cementing of materials containing coal decomposition products. Ger. patent application I 71146/22i, dated Dec 30, 1941. In German. 1.50

269 PB L 25616 — Production of oil-like esters. Ger. patent application I 71266/12o, dated Jan 5, 1942. In German. 1.50

270 PB L 25616 — Lubricants. Ger. patent application I 71211/23c, dated Jan 5, 1942. In German. 1.50

271 PB L 25616 — Appliance for transmission of current. Ger. patent application I 71272/21h, dated Jan 6, 1942. In German. 1.50

272-273 PB L 25616 — Polymerization, condensation and isomerization products. Ger. patent application I 71267.12o, dated Jan 1, 1942. In German. 1.50

274-275 PB L 25616 — Lubricants. Ger. patent application I 71301/23c, dated Jan 13, 1942. In German. 1.50

276 PB L 25616 — Production of weather-and fire-proof paper, particularly for camouflage purposes. Ger. patent application I 71468/55f, dated Jan 31, 1942. In German. 1.50

277-278 PB L 25616 — Production of stable, concentrated aqueous emulsions of (having a weight) high molecular, emulsifiable organic substances. Ger. patent application I 71470/12s, dated Jan 31, 1942. In German. 1.50

279 PB L 25616 — Adhesive inflammable materials. Ger. patent application I 71432/78d, dated Jan 31, 1942. In German. 1.50

280 PB L 25616 — Production of sheet-like objects from superpolyamides. Ger. patent application I 71477/61b, dated Feb 5, 1942. In German. 1.50

281 PB L 25616 — Regeneration of catalysts. Ger. patent application I 71558/12g, dated Feb 14, 1942. In German. 1.50

282 PB L 25616 — High pressure vessels. Ger. patent application I 71560/7b, dated Feb 16, 1942. In German. 1.50

283 PB L 25616 — Manufacture of electrode carbon. Ger. patent application I 71582/10a, dated Feb 17, 1942. In German. 1.50

284-285 PB L 25616 — Process for transforming CO with hydrogen into liquid and solid oxygen derivatives. Ger. patent application I 71725/120, dated Mar 2, 1942. In German. 1.50

286 PB L 25616 — Lubricants. Ger. patent application I 71649/23c, dated Mar 2, 1942. In German. 1.50

287-288 PB L 25616 — Process for transforming CO with hydrogen into liquid and solid O-containing organic compounds. Ger. patent application I 71917/12o, dated Mar 28, 1942. In German. 1.50

289 PB L 25616 — Process for transforming CO with hydrogen. Ger. patent application I 71916/210, dated Mar 28, 1942. In German. 1.50

290 PB L 25616 — Alkylation of isoparaffins with olefins, particularly of isobutanes with n- or i-butylene. Ger. patent application I 71882/12o, dated Mar 30, 1942. In German. 1.50

291 PB L 25616 — Use of linear polyesters from aliphatic dicarboxylic acids as lubricants and pressure-transmitting agents. Ger. patent application I 72010/23c, dated Apr. 15, 1942. In German. 1.50

292 PB L 25616 — Explosives. Ger. patent application I 72018/78c, dated Apr 16, 1942. In German. 1.50

293 PB L 25616 — Preparation of anti-knock motor fuels. Ger. patent application I 72035/120, dated Apr 20, 1942. In German. 1.50

294 PB L 25616 — Manufacture of weather-proof and flame-resisting paper. Ger. patent appli-

cation I 72064/72g, dated Apr 21, 1942. In German. 1.50

295 PB L 25616 **Storage cell of lead.** Ger. patent application I 72123/21b, dated Apr 30, 1942. In German. 1.50

296-297 PB L 25616 **Tires for vehicles.** Ger. patent application I 72127/63e, dated May 4, 1942. In German. 1.50

298 PB L 25616 **Preparing of inflammable materials.** Ger. patent application I 72261/78d, dated May 20, 1942. In German. 1.50

299 PB L 25616 **Drying vegetable parts containing silicic acid.** Ger. patent application I 72336/8m, dated May 27, 1942. In German. 1.50

300 PB L 25616 **Polymerisation of olefins with a low-molecular weight.** Ger. patent application I 72313/12o, dated May 26, 1942. In German. 1.50

301 PB L 25616 **Storage cell of lead.** Ger. patent application I 72329/21b, dated May 29, 1942. In German. 1.50

302 PB L 25616 **Polymerisation of ethylene using aluminum chloride.** Ger. patent application I 72351/12o, dated May 30, 1942. In German. 1.50

303 PB L 25616 **Process for catalytic cracking hydrocarbon oils.** Ger. patent application I 72352/12o, dated Jun 1, 1942. In German. 1.50

304 PB L 25616 **Additional process for preparing trimethylene trinitramine.** Ger. patent application I 72467/12p, dated Jun 12, 1942. In German. 1.50

305 PB L 25616 **Profilated bands, particularly steel bands.** Ger. patent application I 72483/7b, dated Jun 15, 1942. In German. 1.50

306 PB L 25616 **Preparation of esters.** Ger. patent application I 72511/12o, dated Jun 20, 1942. In German. 1.50

307 PB L 25616 **Lubricants.** Ger. patent application I 72512/23c, dated Jun 20, 1942. In German. 1.50

308-309 PB L 25616 **Preparation of esters.** Ger. patent application I 72513/12o, dated Jun 20, 1942. In German. 1.50

310 PB L 25616 **Lubricants.** Ger. patent application I 72514/23c, dated Jun 20, 1942. In German. 1.50

311 PB L 25616 **Purification of phenol mixtures.** Ger. patent application I 72556/12qu, dated Jun 20, 1942. In German. 1.50

312 PB L 25616 **Preparation of compounds from cyclopolyenes.** Ger. patent application I 72515/120, dated Jun 22, 1942. In German. 1.50

313 PB L 25616 **Lubricants.** Ger. patent application I 67391/23c, dated Jul 8, 1942. In German. 1.50

314 PB L 25616 **Obtaining formaldehyde.** Ger. patent application I 72672/12o, dated Jul 10, 1942. In German. 1.50

315 PB L 25616 **Protection of high pressure mains against unduly high temperatures.** Ger. patent application I 72880/12o, dated Aug 4, 1942. In German. 1.50

316 PB L 25616 **Thickening of solidifying of liquid hydrocarbons.** Ger. patent application I 72989/78d, dated Aug 21, 1942. In German. 1.50

317 PB L 25616 **Preparation of solid combustible materials.** Ger. patent application I 72988/78d, dated Aug 21, 1942. In German.

318 PB L 25616 **Improving the process for preparing highly elastic rubber-like materials.** Ger. patent application I 73010/39b, dated Aug 25, 1942. In German. 1.50

319-321 PB L 25616 **Process for the cracking pressure-hydrogenation of heavy or medium oils.** Ger. patent application I 73009/120, dated Aug 25, 1942. In German. 1.50

322 PB L 25616 **Drying vegetable parts containing silicic acid.** Ger. patent application I 73034/8m, dated Aug 28, 1942. In German. 1.50

323 PB L 25616 **Preparation of esters of nitric acid.** Ger. patent application I 73039/12o, dated Aug 29, 1942. In German. 1.50

324 PB L 25616 **Preparation of catalysts for dehydrogenation.** Ger. patent application I 73089/12o, dated Sep 2, 1942. In German. 1.50

325 PB L 25616 **Preparation of lubricating oils.** Ger. patent application I 73102/12o, dated Sep 8, 1942. In German. 1.50

326 PB L 25616 **Preparation of drying oils.** Ger. patent application I 73101/22h, dated Sep 8, 1942. In German. 1.50

327 PB L 25616 **Preparation of dichlordialkylsulfides.** Ger. patent application I 73129/12o, dated Sep 11, 1942. In German. 1.50

328 PB L 25616 **Process for drying vegetable parts containing silicic acid.** Ger. patent application I 73156/8m, dated Sep 15, 1942. In German. 1.50

329 PB L 25616 **Adhesive inflammable materials.** Ger. patent application I 73183/78d, dated Sep 15, 1942. In German. 1.50

330 PB L 25616 **Preparation of cyclic alkylene ureas.** Ger. patent application I 73166/12p, dated Sep 18, 1942. In German. 1.50

331 PB L 25616 **Preparation of trimethylene trinitramine.** Ger. patent application I 73227/12p, dated Sep 29, 1942. In German. 1.50

332 PB L 25616 **Obtaining formaldehyde.** Ger. patent application I 73226/12o, dated Sep 29, 1942. In German. 1.50

333 PB L 25616 **Preparation of chloroethers.** Ger. patent application I 73236/12o, dated Sep 30, 1942. In German. 1.50

334 PB L 25616 **Preparation of highly elastic rubber-like materials.** Ger. patent application I 73381/39b, dated Oct 21, 1942. In German. 1.50

335 PB L 25616 **Preparation of P- and N-containing organic compounds.** Ger. patent application I 73390/12p, dated Oct 23, 1942. In German. 1.50

336 PB L 25616 **Obtaining lubricating oils.** Ger. patent application I 73411/12o, dated Oct 24, 1942. In German. 1.50

337 PB L 25616 — Concentrating solutions of synthetic rubber. Ger. patent application I 73412/39b, dated Oct 24, 1942. In German. 1.50

338-339 PB L 25616 — Preparation of carboxylic esters. Ger. patent application I 73532/12o, dated Nov 6, 1942. In German. 1.50

340 PB L 25616 — Preparation of ester-like products by esterification of saponifiable components. Ger. patent application I 73555/120, dated Nov 12, 1942. In German. 1.50

341 PB L 25616 — Polymerization of butadiene-hydrocarbons. Ger. patent application I 73569/39o, dated Nov 16, 1942. In German. 1.50

342 PB L 25616 — Preparation of trimethylenetrinitramine. Ger. patent application I 73626/12p, dated Nov 21, 1942. In German. 1.50

343 PB L 25616 — Improving the process of O.Z.13.047 for manufacturing winding bodies. Ger. patent application I 73627/7b, dated Nov 23, 1942. In German. 1.50

344 PB L 25616 — Preparation of ethylene from acetylene by hydrogenation. Ger. patent application I 73821/120, dated Dec 9, 1942. In German. 1.50

345-348 PB L 25616 — Devices on vessels. Ger. patent application I 65553 Ia/17g, dated Sep 2, 1939. In German. 1.50

349-351 PB L 25616 — High pressure vessel. Ger. patent application I 66140 Ia/17g, dated Dec 14, 1939. In German. 1.50

352-356 PB L 25616 — Lids for high pressure vessels. Ger. patent application I 66235 Ia/17g, dated Jan 4, 1940. In German. 1.50

357-360 PB L 25616 — High pressure vessel. Ger. patent application I 66393/Ia/17g, dated Jan 30, 1940. In German. 1.50

361-364 PB L 25616 — Apparatus for winding up metal strips on metal cores. Ger. patent application I 66428 Ib/7b, dated Feb 6, 1940. In German. 1.50

365-368 PB L 25616 — Process for producing wound-up bodies, particularly "high pressure hollow bodies." Ger. patent application I 69703 Ib/7b, dated May 28, 1941. In German. 1.50

369-371 PB L 25616 — Process for producing wound-up bodies. Ger. patent application I 69907 Ib/7b, dated Jun 25, 1941. In German. 1.50

372-376 PB L 25616 — Process for carrying-out Grignard reactions. Ger. patent application I 70866 VIc/12o, dated Nov 12, 1941. In German. 1.50

377-379 PB L 25616 — "High pressure hollow bodies." Ger. patent application I 66481 Ia/17g, dated Feb 15, 1940. In German. 1.50

380-381 PB L 25616 — High pressure vessel. Ger. patent application I 66482 Ia/17g, dated Feb 15, 1940. In German. 1.50

382-384 PB L 25616 — Water-softening process (French language). Ger. patent application I 70979 IVb/85b, dated Nov 27, 1941. In German. 1.50

385-390 PB L 25616 — Process for performing Grignard reactions. Ger. patent application I 70843 IVc/12o, dated Nov 6, 1941. In German. 1.50

391-393 PB L 25616 — High pressure vessel with flanges. Ger. patent application I 71101 Ia/17g, dated Dec 16, 1941. In German. 1.50

394-399 PB L 25616 — Apparatus for the transmission of current in electric resistance heating of mobile metal strips. Ger. patent application I 71272 VIIa/21b, dated Jan 7, 1942. In German. 1.50

400-403 PB L 25616 — Process for producing pressure-resistant hollow bodies. Ger. patent application I 71560 Ib/7b, dated Feb 16, 1942. 1.50

404-410 PB L 25616 — Process for producing styrene and its homologues. Ger. patent application I 72179 IVd/12o, dated May 4, 1942. 1.50

411-414 PB L 25616 — Profilated strips for the production of pressure resistant hollow bodies. Ger. patent application I 72483 I/7b, dated Jun 15, 1942. In German. 1.50

415-418 PB L 25616 — Arrangement for the protection of high pressure mains against excessively high temperatures. Ger. patent application I 72880 IVd/12o, dated Aug 4, 1942. In German. 1.50

419-421 PB L 25616 — Process for producing esters. Ger. patent application. In German. 1.50

422-425 PB L 25616 — Process for producing polyesters. Ger. patent application I 73977 IVd/12o, dated Jan 4, 1943.

426-428 PB L 25616 — Tanning agents containing iron compounds. Ger. patent application I 74058 IVd/28a, dated Jan 11, 1943. In German. 1.50

429-431 PB L 25616 — Tanning agents containing iron compounds. Ger. patent application I 74069 IVc/12q, dated Jan 12, 1943. In German. 1.50

432-434 PB L 25616 — Process for producing highly concentrated nitric acid. Ger. patent application I 74063 IVb/12i, dated Jan 12, 1943. In German. 1.50

435-438 PB L 25616 — Process for preventing the explosion of unsaturated hydrocarbons which show a tendency towards spontaneous decomposition. Ger. patent application I 74088 IVd/12o, dated Jan 15, 1943. In German. 1.50

439-444 PB L 25616 — Process for producing highly concentrated nitric acid. Ger. patent application I 74116 IVb/12i, dated Jan 20, 1943. In German. 1.50

445-449 PB L 25616 — Process for producing valuable materials from pentaerythritol. Ger. patent application I 74278 IVd/12o, dated Feb 5, 1943. In German. 1.50

450-457 PB L 25616 — Production of emulsions. Ger. patent application I 74505 IVb/12e, dated Mar 5, 1943. In German. 1.50

458-460 PB L 25616 — Plasticisers for vinyl chloride polymers. Ger. patent application I 74581 IVc/39b, dated Mar 17, 1943. In German. 1.50

461-462 PB L 25616 — Process for producing dichlorodimethylether. Ger. patent application I 74739 IVd/12o, dated Apr 3, 1943. In German. 1.50

463-464 PB L 25616 — Process for producing symmetric dichlorodimethylether. Ger. patent

application I 74738 IVd/12o, Apr 3, 1943. In German. 1.50

465-471 PB L 25616 **Process for reacting acid halides with hydroxyl or sulfhydryl compounds.** Ger. patent application I 75140 IVd/12o, dated May 21, 1943. In German. 1.50

472-476 PB L 25616 **Process for producing carboxylic acids.** Ger. patent application I 75395 IVd/12o, dated Jun 29, 1943. In German. 1.50

477-479 PB L 25616 **Tanning agents.** Ger. patent application I 75454 IVd/28a, dated Jul 9, 1943. In German. 1.50

480-481 PB L 25616 **Tanning agents.** Ger. patent application I 75455 IVd/28a, dated Jul 9, 1943. In German. 1.50

482-484 PB L 25616 **Process for producing tanning agents.** Ger. patent application I 75481 IVd/12o, dated Jul 10, 1943. In German. 1.50

485-488 PB L 25616 **Emulsion polymerization of diene compounds.** Ger. patent application I 75790 IVc/39n, dated Sep 2, 1943. In German. 1.50

489-492 PB L 25616 **Plasticizers.** Ger. patent application I 75877 IVc/39b, dated Sep 15, 1943. In German. 1.50

493-496 PB L 25616 **Process for producing Diesel oil.** Ger. patent application I 76887 IVd/12r, dated Feb 28, 1941. In German. 1.50

497-499 PB L 25616 **Process for producing Diesel oil and valuable phenols from oils.** Ger. patent application I 76948 IVc/12g, dated Mar 9, 1944. In German. 1.50

500-502 PB L 25616 **Process for performing Grignard reactions.** Ger. patent application I 76979 IVc/12o, dated Mar 9, 1944. In German. 1.50

503-504 PB L 25616 **Process for producing furfuryl alcohol.** Ger. patent application I 76993 IVc/12q, dated Mar 10, 1944. In German. 1.50

505-510 PB L 25616 **Process for producing plastic masses from oils.** Ger. patent application I 77057 IVc/39b, dated Apr 1, 1944. In German. 1.50

511-513 PB L 25616 **Process for separating phenols from oils.** Ger. patent application. In German. 1.50

514-515 PB L 25616 **Process for the catalytic pressure hydrogenation of coals, tars or mineral oils.** Ger. patent application. In German. 1.50

516-519 PB L 25616 **Process for the dewaxing of oils.** Ger. patent application. In German. 1.50

520-523 PB L 25616 **Process for producing high efficiency motor fuels with suitable boiling points.** Ger. patent application. In German. 1.50

524-525 PB L 25616 **Process for separating phenols from oils.** Ger. patent application I 77530 IVc/12q, dated Jun 2, 1944. In German. 1.50

526-529 PB L 25616 **Process for carrying out catalytic reactions.** Ger. patent application I 77560 IVb/12g, dated Jun 6, 1944. In German. 1.50

530-531 PB L 25616 **Tanning process.** Ger. patent application I 77562 IVd/28a, dated Jun 9, 1944. In German. 1.50

532-534 PB L 25616 **Process for producing aromatic hydrocarbons with a low boiling point.** Ger. patent application. In German. 1.50

535-539 PB L 25616 **Process for carrying out catalytic reactions with finely divided catalysts.** Ger. patent application. In German. 1.50

540-544 PB L 25616 **Process for preparing polymerization products of acryl olefins.** Ger. patent application. In German. 1.50

545-548 PB L 25616 **Process for carrying out catalytic reactions.** Ger. patent application. In German. 1.50

549-560 PB L 25616 **Process for working of paraffin-containing oils.** Ger. patent application. In German. 1.50

561-565 PB L 25616 **Process for producing anti-knock motor fuels.** Ger. patent application. In German. 1.50

566-568 PB L 25616 **Process for converting hydrocarbons without extensive splitting, particularly for dehydrogenation or aromatization.** Ger. patent application. In German. 1.50

569-571 PB L 25616 **Process for fixing synthetic substances on smooth surfaces.** Ger. patent application I 77987 XII/39c, dated Jul 10, 1944. In German. 1.50

572-574 PB L 25616 **Process for producing aluminum chloride.** Ger. patent application I 77993 IVb/12m, dated Jul 14, 1944. In German. 1.50

575-579 PB L 25616 **Process for producing plastic masses.** Ger. patent application I 77994 IVc/39c, dated Jul 15, 1944. In German. 1.50

580-581 PB L 25616 **Process for producing hydroxycarboxylic acids.** Ger. patent application I 77834 IVd/12o, dated Jul 17, 1944. In German. 1.50

582-584 PB L 25616 **Process for improving plasticity of rubber-like polymerization products.** Ger. patent application I 65660 IVc/39b, dated Sep 19, 1939. In German. 1.50

585-587 PB L 25616 **Preparation of dithioglycol.** Ger. patent application I 66836 IVd/12o, dated Apr 6, 1940. In German. 1.50

588-591 PB L 25616 **Lubricants and pressure-transmitting agents.** Ger. patent application I 67391 IVd/23c, dated Jul 9, 1940. In German. 1.50

592-594 PB L 25616 **Manufacture of binding-on bodies.** Ger. patent application I 70680 Ib/7b, dated Oct 18, 1941. In German. 1.50

595-599 PB L 25616 **Process for transforming carbon monoxide with hydrogen.** Ger. patent application I 76933 IVd/12o, dated Mar 1, 1944. In German. 1.50

600-601 PB L 25616 **Preparation of sulfur-like compounds.** Ger. patent application I 76877 IVd/12o, dated Feb 26, 1944. In German. 1.50

602-604 PB L 25616 **Preparation of monobasic alcohols.** Ger. patent application I 76952

IVd/12o, dated Mar 3, 1944. In German. 1.50

605-608 PB L 25616 **Preparation of synthetic substances.** Ger. patent application I 76913 IVc/39b, dated Mar 3, 1944. In German. 1.50

609-610 PB L 25616 **Lubricants.** Ger. patent application I 76967 IVd/23c, dated Mar 11, 1944. In German. 1.50

611-614 PB L 25616 **Separating alcohols from their mixtures with hydrocarbons.** Ger. patent application I 77004 IVd/12o, dated Mar 13, 1944. In German. 1.50

615-616 PB L 25616 **Process for manufacturing ketone peroxide solutions.** Ger. patent application I 77105 IVc/12o, dated Mar 24, 1944. In German. 1.50

617-623 PB L 25616 **Process for obtaining heavy water or heavy hydrogen.** Ger. patent application I 77054 IVb/12i, dated Mar 27, 1944. In German. 1.50

624-626 PB L 25616 **Process for purification of ion exchangers.** Ger. patent application I 77055IVb/85b, dated Apr 1, 1944. In German. 1.50

627-628 PB L 25616 **Lubricants.** Ger. patent application I 77056 IVd/23c, dated Apr 1, 1944. In German. 1.50

629-633 PB L 25616 **Process for obtaining polymerization products.** Ger. patent application I 77222 IVc/12o, dated Apr 1, 1944. In German. 1.50

634-637 PB L 25616 **Protectives against chemical warfare agents.** Ger. patent application dated Apr 3, 1944. In German. 1.50

638-639 PB L 25616 **Preparation of thionyl chloride.** Ger. patent application I 77138 IVb/12i, dated Apr 13, 1944. In German. 1.50

640-643 PB L 25616 **Preparation of oxygen-containing organic compounds.** Ger. patent application I 77305 IVd/12o, dated Apr 27, 1944. In German. 1.50

644-647 PB L 25616 **Process for decomposing mixtures of organic compounds.** Ger. patent application I 77283 IVc/12o, dated Apr 29, 1944. In German. 1.50

648-651 PB L 25616 **Process for recovering straight-chain organic compounds from mixtures.** Ger. patent application I 77330 IVc/12o, dated May 2, 1944. In German. 1.50

652-656 PB L 25616 **Process for processing phenol-containing oils and tars.** Ger. patent application I 77374 IVd/12r, dated May 9, 1944. In German. 1.50

657-659 PB L 25616 **Preparation of condensation products.** Ger. patent application, dated May 23, 1944. In German. 1.50

660-662 PB L 25616 **Preparation of synthetic substances.** Ger. patent application I 77553 IVc/39c, dated Jun 6, 1944. In German. 1.50

663-665 PB L 25616 **Masses from synthetic rubber.** Ger. patent application I 77559 IVc/39b, dated Jun 8, 1944. In German. 1.50

666-668 PB L 25616 **Process for refining hydrocarbons.** Ger. patent application, dated Jun 10, 1944. In German. 1.50

669-671 PB L 25616 **Process for removing diolefins from gases.** Ger. patent application I 77567 IVd/12o, dated Jun 13, 1944. In German. 1.50

672-674 PB L 25616 **Process for dehydrogenating or cleaving hydrocarbons.** Ger. patent application, dated Jun 16, 1944. In German. 1.50

675-678 PB L 25616 **Preparation of heavily branched paraffinic hydrocarbons from naphthenic hydrocarbons.** Ger. patent application, dated Jun 17, 1944. In German. 1.50

679-681 PB L 25616 **Process for conversion of hydrocarbons.** Ger. patent application, dated Jun 17, 1944. In German. 1.50

682-684 PB L 25616 **Preparation of diolefins.** Ger. patent application, dated Jun 19, 1944. In German. 1.50

685-687 PB L 25616 **Preparation of phosphate-containing catalysts.** Ger. patent application, dated Jun 23, 1944. In German. 1.50

688-690 PB L 25616 **Carrying out of catalytic reactions.** Ger. patent application, dated Jun 28, 1944. In German. 1.50

691-693 PB L 25616 **Process for isomerization of hydrocarbons.** Ger. patent application I 77733 IVd/12o, dated Jul 3, 1944. In German. 1.50

694-697 PB L 25616 **Process for isomerization of aliphatic hydrocarbons.** Ger. patent application I 77734 IVd/12o, dated Jul 3, 1944. In German. 1.50

698-702 PB L 25616 **Process for obtaining liquid oxygen beside gases through decomposition of air.** Ger. patent application I 77693 Ia/17g, dated Jul 3, 1944. In German. 1.50

703-705 PB L 25616 **Process for alkylating hydrocarbons.** Ger. patent application I 77788 IVd/12o, dated Jul 5, 1944. In German. 1.50

706-710 PB L 25616 **Lubrication of internal combustion engines.** Ger. patent application I 77694 Ia/46c1, dated Jul 11, 1944. In German. 1.50

711-712 PB L 25616 **Preparation of primary alcohols.** Ger. patent application I 77830 IVd/12o, dated Jul 18, 1944. In German. 1.50

713-714 PB L 25616 **Process for chlorinating organic compounds.** Ger. patent application I 77896 IVc/12o, dated Jul 21, 1944. In German. 1.50

715-718 PB L 25616 **Process for carrying-out catalytic reactions.** Ger. patent application I 77560 IVb/12g, dated Jun 8, 1944. In German. 1.50

719-720 PB L 25616 **Tanning process.** Ger. patent application I 77562 IVd/28a, dated Jun 9, 1944. In German. 1.50

721-725 PB L 25616 **Process for preparing polymerization products of arylolefins.** Ger. patent application, dated Jun 16, 1944. In German. 1.50

726-729 PB L 25616 No papers missing - faulty numbering.

Patent applications Hoechst (many in abstract form only). Continuation of Hoechst patents at the end of reel, Patents 151.

730-731 PB L 25616 — Process for preparation of dinitroacenaphthene. Ger. patent application, dated Oct 29, 1941. In German. 1.50

732-733 PB L 25616 — Process for preparation of foams from the milk juices of synthetic rubbers. Ger. patent application I 75937 IVe/39c, dated Sep 25, 1943. In German. 1.50

734-737 PB L 25616 — Process for stabilization of organic halides. Ger. patent application, dated Jan 15, 1944. In German. 1.50

738-740 PB L 25616 — Process for protecting the hulks of ships, buoys, etc. Ger. patent application, dated Nov 1, 1940. In German. 1.50

741-746 PB L 25616 — Process for preparing condensation products. Ger. patent application I 77016 IVd/12o, dated Mar 14, 1944. In German. 1.50

747-748 PB L 25616 — Insecticides. Ger. patent application. In German. 1.50

749-751 PB L 25616 — Insecticides. Ger. patent application, dated Mar 9, 1944. In German. 1.50

752-756 PB L 25616 — Process for concentration of nitric acid. Ger. patent application, dated Mar 17, 1944. In German. 1.50

757-759 PB L 25616 — Lubricants, braking fluids and precipitating fluids. Ger. patent application, dated Mar 28, 1944. In German. 1.50

760-765 PB L 25616 — Process for production of synthetic leather. Ger. patent application, dated Mar 13, 1944. In German. 1.50

766-771 PB L 25616 — Process for production of condensation compounds. Ger. patent application, dated Apr 3, 1944. In German. 1.50

772-777 PB L 25616 — Wood glue. Ger. patent application, dated Apr 14, 1944. In German. 1.50

778-780 PB L 25616 — Process for reducing the attack of nitric acid on iron. Ger. patent application, dated Apr 3, 1944. In German. 1.50

781-787 PB L 25616 — Process for polymerization of unsaturated compounds. Ger. patent application, dated Apr 4, 1944. In German. 1.50

788-790 PB L 25616 — Process for preparation of tetranitrocarbazole. Ger. patent application, dated May 9, 1944. In German. 1.50

791-793 PB L 25616 — Process for catalytic oxidation of ammonia. Ger. patent application, dated May 10, 1944. In German. 1.50

794-796 PB L 25616 — Process for production of chlorobromomethane. Ger. patent application, dated May 18, 1944. In German. 1.50

797-799 PB L 25616 — Process for production of brominated hydrocarbons. Ger. patent application, dated May 18, 1944. In German. 1.50

800-803 PB L 25616 — Process for polymerization of unsaturated compounds. Ger. patent application I 77452 IVc/39c, dated May 22, 1944. In German. 1.50

804-805 PB L 25616 — Process for production of trichloroacetonitrile. Ger. patent application, dated May 24, 1944. In German. 1.50

806-808 PB L 25616 — Process for production of a lignite coke low in ash-content. Ger. patent application, dated Jun 20, 1944. In German. 1.50

809-812 PB L 25616 — Process for fire fighting. Ger. patent application, dated Jun 14, 1944. In German. 1.50

813-815 PB L 25616 — Admixture for oils and oil mixtures. Ger. patent application, dated Jun 6, 1944. In German. 1.50

816-818 PB L 25616 — Process for precipitation of latices. Ger. patent application, dated Jul 6, 1944. In German. 1.50

819-823 PB L 25616 — Process for emulsion polymerization. Ger. patent application, dated Jul 8, 1944. In German. 1.50

824-828 PB L 25616 — Process for emulsion polymerization Ger. patent application, dated Jul 13, 1944. In German. 1.50

829-837 PB L 25616 — Process for production of esters of dichlorocarbonic acid. Ger. patent application, dated Jul 22, 1944. In German. 1.50

838-845 PB L 25616 — Process for production of polyurethanes. Ger. patent application, dated Jul 25, 1944. In German. 1.50

Patent applications Meiskur (many in abstract form only) Continuation of Meiskur patents at the end of reel, Patents 160.

846-847 PB L 25616 — Process for producing color filters resistant to moisture and temperature. Ger. patent application I 66370 IVa/57b, dated Jan 29, 1944. In German. 1.50

848-850 PB L 25616 — Process for producing luminous coatings that are virtually grainless. Ger. patent application I 66622 IVa/57b, dated Mar 7, 1940. In German. 1.50

851 PB L 25616 — Process for producing color filters resistant to moisture & temperature. Ger. patent application I 67738 IVa/57b, dated Aug 31, 1940. In German. 1.50

852-853 PB L 25616 — Method and device for reading in the dark. Ger. patent application I 67873 IVa/57b, dated Sep 21, 1940. In German. 1.50

854-855 PB L 25616 — Device and method for differentiating layers of clouds. Ger. patent application I 68050 IIa/42g, dated Oct 19, 1940. In German. 1.50

856 PB L 25616 — Process for reading (maps, tables, instruments, etc.) in the dark. Ger. patent application I 68351 IVa/57b, dated Dec 4, 1940. In German. 1.50

857-859 PB L 25616 — Process for producing dicyanodiamide. Ger. patent application I 70401 IVb/12k, dated Sep 6, 1941. In German. 1.50

860-861 PB L 25616 — Process for producing absorbing in the infrared coatings. Ger. patent application I 70541 IVa/57b, dated Oct 1, 1941. In German. 1.50

862-863 PB L 25616 — Process for producing color filters resistant to moisture and temperature. Ger. patent application I 70551

IVa/57b, dated Oct 2, 1941. In German. 1.50

864 PB L 25616 — Process for producing luminous powders. Ger. patent application I 70759 IVc/22f, dated Oct 31, 1941. In German. 1.50

865-865a PB L 25616 — Process for stiffening hats. Ger. patent application I 70991 IVd/8k, dated Nov 27, 1941. In German. 1.50

866-868 PB L 25616 — Process for marking in the dark. Ger. patent application I 70959 II/62c, dated Nov 27, 1941. In German. 1.50

869-871 PB L 25616 — Process for producing absorbing in the infrared coatings. Ger. patent application I 70985 IVa/57b, dated Dec 2, 1941. In German. 1.50

872-874 PB L 25616 — Preparations of sulfur dyes. Ger. patent application I 71246 IVd/8m, dated Dec 27, 1941. In German. 1.50

875-876 PB L 25616 — Process for preparing luminous powders. Ger. patent application I 71145 IVc/22f, dated Dec 27, 1941. In German. 1.50

877-878 PB L 25616 — Process for stabilization of iron-II-compounds. Ger. patent application I 71312 IVb/12n, dated Jan 9, 1942. In German. 1.50

879-880 PB L 25616 — Process and devices for gluing films on to plane surfaces. Ger. patent application I 72005 IVd/57b, dated Apr 14, 1942. In German. 1.50

881-884 PB L 25616 — Process for coloring paper pulp with sulfur dyes. Ger. patent application I 72043 IVb/55c, dated Apr 16, 1942. In German. 1.50

885-887 PB L 25616 — Process for marking dyes, particularly sulfur dyes. Ger. patent application I 72209 IVd/22e, dated May 13, 1942. In German. 1.50

888-889 PB L 25616 — Process for producing absorbing in the infrared coatings. Ger. patent application I 72992 IVa/57b, dated Aug 24, 1942. In German. 1.50

890-891 PB L 25616 — Process for producing absorbing in the infrared coatings. Ger. patent application I 73008 IVa/57b, dated Aug 25, 1942. In German. 1.50

892-893 PB L 25616 — Process for producing condensation products of high molecular weight. Ger. patent application I 73578 IVc/39c, dated Oct 29, 1942. In German. 1.50

894-898 PB L 25616 — Process for producing secondary arsonic acids. Ger. patent application I 75584 IVc/12q, dated Jul 27, 1943. In German. 1.50

899-900 PB L 25616 — Process for producing sulfur-containing derivatives of diols. Ger. patent application I 75616 IVd/120, dated Jul 29, 1943. In German. 1.50

901-902 PB L 25616 — Process for producing sulfur-containing derivatives of diols. Ger. patent application I 74203 IVd/12o, dated Oct 12, 1943. In German. 1.50

903-905 PB L 25616 — Process for producing aliphatic polyhydroxy compounds. Ger. patent application I 68538 IVc/12o, dated Dec 23, 1940. In German. 1.50

906-908 PB L 25616 — Process for producing esters of sulfosuccinic acid. Ger. patent application I 75927 IVd/12o, dated Sep 24, 1943. In German. 1.50

909-912 PB L 25616 — Process for producing esters of sulfophthalic acid. Ger. patent application I 75980 IVd/12o, dated Oct 4, 1943. In German. 1.50

913-915 PB L 25616 — Process for producing secondary arsonic acids. Ger. patent application I 76479 IVc/12o, dated Dec 27, 1943. In German. 1.50

916-919 PB L 25616 — Process for producing aqueous emulsions of lacquer resin. Ger. patent application I 77659 IVc/22h, dated Jun 26, 1944. In German. 1.50

Patent applications Leverkusen (many in abstract form only) Continuation of Leverkusen patents at the end of reel, Patents 159.

920-929 PB L 25616 — Process for manufacturing rubberlike products. Ger. patent application I 77229 IVc/39b, dated Apr 15, 1944. In German. 1.50

930-932a PB L 25616 — Process for reclaiming vulcanized rubber. Ger. patent application I 77804 IVc/39b, dated Jul 17, 1944. In German. 1.50

933-934 PB L 25616 — Bases of bearings. Ger. patent application I 77780 IVc/39b, dated Jul 5, 1944. In German. 1.50

935-949 PB L 25616 — Process for manufacturing rubberlike products of high-molecular weight. Ger. patent application I 77781 IVc/39b, dated Jul 10, 1944. In German. 1.50

950-956 PB L 25616 — Process for manufacturing products of high molecular weight. Ger. patent application I 77172 IVc/39b, dated Apr 3, 1944. In German. 1.50

957-959 PB L 25616 — Production of activated carbon. Ger. patent application I 77199 IVb/12i, dated Apr 17, 1944. In German. 1.50

960-960a PB L 25616 — Separation of mixtures of gases having small molecules. Ger. patent application I 77332 IVb/12u, dated May 2, 1944. In German. 1.50

961-965 PB L 25616 — Process for manufacturing products of high molecular weight. Ger. patent application I 77351 IVc/39b, dated May 5, 1944. In German. 1.50

966-971 PB L 25616 — Process for producing molded objects. Ger. patent application I 77394 IVc/39c, dated May 15, 1944. In German. 1.50

972-978 PB L 25616 — Process for precipitation of dispersions. Ger. patent application I 71745 IVb/12g, dated Mar 9, 1942. In German. 1.50

979-983 PB L 25616 — Process for preparing dibenzylsulfonic derivatives. Ger. patent application I 65568 IVd/20, dated Sep 4, 1939. In German. 1.50

984-986 PB L 25616 — Process for purifying acrylonitrile. Ger. patent application I 77786 IVc/12o, dated Jul 13, 1944. In German. 1.50

987-989 PB L 25616 — Process for producing chlorinated ethanesulfochlorides. Ger. patent

application I 77052 IVd/12o, dated Mar 24, 1944. In German. 1.50

990-992 PB L 25616 **Process for producing unsaturated isocyanates or carbamyl chlorides.** Ger. patent application I 77101 IVc/12o, dated Mar 22, 1944. In German. 1.50

993-996 PB L 25616 **Process for producing organic phosphorus compounds.** Ger. patent application I 71284 IVc/12o, dated Jan 8, 1942. In German. 1.50

997-998 PB L 25616 **Process for producing a vat dye.** Ger. patent application I 69515 IVd/22b, dated Apr 30, 1941. In German. 1.50

999-1003 PB L 25616 **Process for obtaining aralkyl ethers of cellulose.** Ger. patent application I 65570 IVc/12o, dated Sep 7, 1939.

1004-1010 PB L 25616 **Anticorrosion agents.** Ger. patent application I 71908 IVc/39c, dated Mar 28, 1942. In German. 1.50

1011-1017 PB L 25616 **Vulcanization retarder.** Ger. patent application I 71909 IVc/39b, dated Mar 28, 1942. In German. 1.50

Patent applications Bitterfeld-Wolfen/Farben (many in abstract form only). Continuation of Bitterfeld-Wolfen/Farben patents at the end of reel. Patent 154.

1018-1025 PB L 25616 **Method and device for making extrusion pressure products with a crossection varying in longitudinal direction.** Ger. patent application I 77341 Ib/7b, dated May 3, 1944. In German. 1.50

1026-1032 PB L 25616 **Process for producing tapering solid profiles, by molding in the extrusion press.** Ger. patent application I 77366 Ib/7b, dated May 9, 1944. In German. 1.50

1033-1034 PB L 25616 **Molded articles of low specific gravity from polyvinyl chloride or its copolymers.** Ger. patent application I 76927 IVc/39b, dated Mar 7, 1944. In German. 1.50

1035 PB L 25616 **Molded articles, of low specific gravity from polyvinyl chloride or its copolymers.** Ger. patent application I 76928 IVc/39b, dated Mar 7, 1944. In German. 1.50

1036-1038 PB L 25616 **Process for purifying paraffin sulfonates.** Ger. patent application I 70255 IVd/120, dated Aug 15, 1941. In German. 1.50

1039-1041 PB L 25616 **Process for purifying paraffin sulfonates.** Ger. patent application I 71002 IVd/12o, dated Nov 28, 1941. In German. 1.50

1042-1052b PB L 25616 **Frostproof liquid mixtures on the basis of alcohol.** Ger. patent application I 70178 IVa/12a, dated Aug 2, 1941. In German. 1.50

Patent applications Leverkusen (many in abstract form only). Continuation of Leverkusen patents at the end of reel. Patents 152.

1053-1055 PB L 25616 **Process for producing acrylic esters.** Ger. patent application I 70749 IVc/12o, dated Oct 25, 1941. In German. 1.50

1056-1061 PB L 25616 **Process for preparing addition products from formamide compounds and acrylonitrile.** Ger. patent application I 67119 IVc/12o, dated May 31, 1940. In German. 1.50

1062-1064A PB L 25616 **Process for producing formylamino-beta-propionitrile.** Ger. patent application I 66874 IVd/12o, dated Apr 16, 1940. In German. 1.50

1065-1344 PB L 25616 **No papers missing - faulty numbering.**

Continuation of frame No. 729, abstract of patent applications Ludwigshafen

1345 PB L 25616 **Motor fuel especially safety fuel for high-duty engines.** Ger. patent application I 73798/46a6, dated Dec 11, 1942. In German. 1.50

1346 PB L 25616 **Highly porous building and insulating materials.** Ger. patent application I 73797/39b, dated Dec 14, 1942. In German. 1.40

1347 PB L 25616 **Preparation of hydrazine.** Ger. patent application I 73848/121, dated Dec 15, 1942. In German. 1.50

1348 PB L 25616 **Process for production of artificial fog.** Ger.patent application I 73251/78d, dated Dec 17, 1942. In German. 1.50

1349 PB L 25616 **Production of alkylaminenitrates.** Ger. patent application I 73861/12g, dated Dec 18, 1942. In German. 1.50

1350 PB L 25616 **Production of explosives.** Ger. patent application I 73862/78c, dated Dec 19, 1942. In German. 1.50

1351 PB L 25616 **Production of explosives.** Ger. patent application I 73863/78c, dated Dec 19, 1942. In German. 1.50

1352 PB L 25616 **Production of explosives.** Ger. patent application I 73864/78c, dated Dec 19, 1942. In German. 1.50

1353 PB L 25616 **Further development of the process for production of artificial fog.** Ger. patent application I 73855/78d, dated Dec 21, 1942. In German. 1.50

1354 PB L 25616 **Use of solid nitrous oxide as oxygen carrier.** Ger. patent application I 73933/12g, dated Dec 12, 1942. In German. 1.50

1355 PB L 25616 **Production of polyesters.** Ger. patent application I 73971/12o, dated Jan 1, 1943. In German. 1.50

1356 PB L 25616 **Tanning agents containing iron compounds.** Ger. patent application I 74058/28a, dated Jan 11, 1943. In German. 1.50

1357 PB L 25616 **Production of motor fuels.** Ger. patent application I 74056/12c, dated Jan 14, 1943. In German. 1.50

1358 PB L 25616 **Gasoline to which metal organic compounds (tetraethyl lead) have been added.** Ger. patent application I 74067/46a6, dated Jan 15, 1943. In German. 1.50

1359 PB L 25616 **Preventing exploding of unsaturated hydrocarbon which tend to decompose spontaneously.** Ger. patent application I 74088/120, dated Jan 15, 1943. 1.50

1360 PB L 25616 **Gasoline to which organic lead compounds (for instance tetra ethyl lead) have been added.** Ger. patent application I 74173/46a6, dated Jan 29, 1943. In German. 1.50

1361 PB L 25616 **Carrying-out of catalytic reactions.** Ger. patent application I 74227/12g, dated Jan 30, 1943. In German. 1.50

1362 PB L 25616 — Cracking of anhydrous aluminum chloride. Ger. patent application I 77227/12p, dated Apr 17, 1944. In German. 1.50

1363-1364 PB L 25616 — Production of O-containing compounds (alcohols). Ger. patent application I 74241/120, dated Feb 4, 1943. In German. 1.50

1364A PB L 25616 — Dichlorbutane from a butane-butylene mixture. Ger. patent application I 74279/120, dated Feb 8, 1943. In German. 1.50

1364B PB L 25616 — Lubricants by means of polymerization of ethylene or gas mixtures containing ethylene. Ger. patent application I 74254/12o, dated Feb 9, 1943. In German. 1.50

1365-1366 PB L 25616 — Reaction of CO with hydrogen. Ger. patent application I 74468/12o, dated Mar 2, 1943. In German. 1.50

1367 PB L 25616 — Protection against chemical warfare agents. Ger. patent application I 74431/61b, dated Mar 3, 1943. In German. 1.50

1368 PB L 25616 — Apparatus for catalytic reactions. Ger. patent application I 74507/12g, dated Mar 8, 1943. In German. 1.50

1369 PB L 25616 — Preparation of monomethylaminenitrate. Ger. patent application I 74512/12q, dated Mar 11, 1943. In German. 1.50

1370 PB L 25616 — Production of primary or secondary amides. Ger. patent application I 74513/120, dated Mar 11, 1943. In German. 1.50

1371 PB L 25616 — Process for production of pressed coal which ignites upon contact with air. Ger. patent application I 74559/10b, dated Mar 16, 1943. In German. 1.50

1372 PB L 25616 — Production of high-grade motor fuels. Ger. patent application I 74591/46a6, dated Mar 22, 1943. In German. 1.50

1373 PB L 25616 — Production of aliphatic dichloro hydrocarbon. Ger. patent application I 74649/120, dated Mar 24, 1943. In German. 1.50

1374 PB L 25616 — Production of activated alumina. Ger. patent application I 74702/12m, dated Mar 29, 1943. In German. 1.50

1375 PB L 25616 — Production of coal electrodes. Ger. patent application I 74668/12h, dated Mar 31, 1943. In German. 1.50

1376 PB L 25616 — Production of coal electrodes. Ger. patent application I 74669/12h, dated Mar 31, 1943. In German. 1.50

1377-1379 PB L 25616 — Production of oxygen-containing organic compounds. Ger. patent application I 74736/120, dated Apr 1, 1943. In German. 1.50

1380-1381 PB L 25616 — Production of hydrocarbons with high molecular weight. Ger. patent application I 74790/12e, dated Apr 5, 1944. In German. 1.50

1382 PB L 25616 — Changing the soft plastic condition of diolefine polymers. Ger. patent application I 74887/39b, dated Apr 24, 1943. In German. 1.50

1383 PB L 25616 — Reactivation of powdery catalysts. Ger. patent application I 74936/12g, dated May 4, 1943. In German. 1.50

1384 PB L 25616 — Motor fuel for high-duty engines. Ger. patent application I 74919/46a6, dated May 6, 1943. In German. 1.50

1385 PB L 25616 — Production of trimethylolethane. Ger. patent application I 75000/120, dated May 10, 1943. In German. 1.50

1386 PB L 25616 — Diesel oils. Ger. patent application I 74942, 12qu, dated May 10, 1943. In German. 1.50

1387 PB L 25616 — Production of anti-knock gasolines. Ger. patent application I 75051/120, dated May 20, 1943. In German. 1.50

1388 PB L 25616 — Production of suberic acid by treating cyclooctane with oxidising agents. Ger. patent application I 75480/120, dated Jul 10, 1943. In German. 1.50

1389 PB L 25616 — Motor fuel for heavy duty engines. Ger. patent application I 75488/46a6, dated Jul 16, 1943. In German. 1.50

1390 PB L 25616 — Recovering of hydrocarbon oils from lime residues. Ger. patent application I 75520/23b, dated Jul 21, 1943. In German. 1.50

1391 PB L 25616 — Preparing low-boiling homogeneous aromatic hydrocarbons by de-alkylising higher-boiling ones. Ger. patent application I 75710/120, dated Aug 21, 1943. In German. 1.50

1392 PB L 25616 — Manufacturing of sheets and other objects from fibrous material and polymers by using aqueous dispersions of polymers containing acid amides. Ger. patent application I 76670/47g, dated Jan 20, 1944. In German. 1.50

1393 PB L 25616 — Process for colouring polyamides and polyurethanes (fibres, textures, ribbons) with sulfur dyes. Ger. patent application, dated Aug 2, 1944. In German. 1.50

1394 PB L 25616 — Device on mills for drying during the milling process equipped with high-speed horizontal grinding plate and gyratory milling rings. Ger. patent application I 77182/50b, dated Apr 3, 1944. In German. 1.50

1395 PB L 25616 — Preparing polycondensation products. Ger. patent application I 77148/39c, dated Apr 5, 1944. In German. 1.50

1396 PB L 25616 — Safety device against excess pressure, particularly in pressure chambers. Ger. patent application I 77224/3c, dated Apr 8, 1944. In German. 1.50

1397 PB L 25616 — High-pressure membrane pump. Ger. patent application I 77183/59a, dated Apr 8, 1944. In German. 1.50

1398 PB L 25616 — Indicator for fluid levels in a container under high pressure. Ger. patent application I 77217/42e, dated Apr 19, 1944. In German. 1.50

1399 PB L 25616 — Preparing condensations products of the linear polyamide type. Ger. patent application I 77302/39c, dated Apr 24, 1944. In German. 1.50

1400 PB L 25616 — Preparing aliphatic dinitriles. Ger. patent application I 77356/120, dated May 8, 1944. In German. 1.50

1401 PB L 25616 — Device for testing the tightness of valves of vessels containing compressed gas. Ger. patent appli-

cation I 77376/42k, dated May 9, 1944. In German. 1.50

1402 PB L 25616 **Producing pitchlike materials suitable as briquetting agent.** Ger. patent application I 77377/12r, dated May 10, 1944. In German. 1.50

1403 PB L 25616 **Driving- and conveyor belts from stretched polyamides or polyurethanes containing up to 5% of an aromatic or hydroaromatic hydroxy compound.** Ger. patent application I 77419/47d, dated May 17, 1944. In German. 1.50

1404 PB L 25616 **Utilizing the oil-containing residues of coal hydrogenation by producing pressed coal for any purposes.** Ger. patent application I 74250, dated May 20, 1944. In German. 1.50

1405 PB L 25616 **Producing a catalyst carrier.** Ger. patent application I 77526/12g, dated Jun 2, 1944. In German. 1.50

1406 PB L 25616 **Production of efficient catalysts or catalyst carriers containing silicon.** Ger. patent application I 77528/12g, dated Jun 2, 1944. In German. 1.50

1407 PB L 25616 **Purifying saturated diamines by distillation.** Ger. patent application I 77353/12m, dated Apr 29, 1944. In German. 1.50

1408 PB L 25616 **High-pressure valve, especially for safety purposes or for pressure reduction.** Ger. patent application I 77952/47g, dated Jun 3, 1944. In German. 1.50

1409-1410 PB L 25616 **Processing residues from pressure hydrogenation of coal, tars and mineral oils, as well as from pressure extraction of coal.** Ger. patent application I 77533/10a, dated Jun 5, 1944. In German. 1.50

1411 PB L 25616 **Use of polymers as sizing agents for synthetic fibers or threads.** Ger. patent application I 77534/8k, dated Jun 5, 1944. In German. 1.50

1412 PB L 25616 **Stuffing-box packings for plungers and piston rods of high-pressure pumps.** Ger. patent application I 77564/59a, dated Jun 12, 1944. In German. 1.50

1413 PB L 25616 **Separating mixtures of synthetic alumina and compounds of metals of the 6th group.** Ger. patent application I 77568/12g, dated Jun 13, 1944. In German. 1.50

1414-1415 PB L 25616 **Processing residues from pressure hydrogenation of coal, tars and mineral oils as well as from pressure extraction of coal.** Ger. patent application I 77610/10a, dated Jun 16, 1944. In German. 1.50

1416 PB L 25616 **Device for catalytic gas reactions, especially for catalytic splitting of oil fumes, using granulated or lumpy catalysts.** Ger. patent application I 77593/12g, dated Jun 16, 1944. In German. 1.50

1417 PB L 25616 **Remote transmission of indicators of electric fluid-level meters.** Ger. patent application I 77665/74b, dated Jun 26, 1944. In German. 1.50

1418 PB L 25616 **Remote transmission of indicators of electric fluid level meters.** Ger. patent application I 77685/74b, dated Jun 30, 1944. In German. 1.50

1419-1420 PB L 25616 **Producing gases, rich in ethane or ethylene, by splitting high-boiling hydrocarbon oils or distillation residues.** Ger. patent application I 77789/120, dated Jul 7, 1944. In German. 1.50

1421 PB L 25616 **Preparation of solutions from copolymers.** Ger. patent application I 77832/39b, dated Jul 15, 1944. In German. 1.50

1422 PB L 25616 **Temperature regulator controlled by compressed air.** Ger. patent application I 77953/42g, dated Jul 31, 1944. In German. 1.50

1423 PB L 25616 **Production of waterproof coatings, films and other formed bodies, using aqueous dispersions of film forming material or solutions thereof.** Ger. patent application I 77912/39b, dated Jul 31, 1944. In German. 1.50

1424 PB L 25616 **Device for treating liquid or dissolved substances by passing them over catalysts.** Ger. patent application I 78258/12g, dated Sep 18, 1944. In German. 1.50

1425 PB L 25616 **Process for dry distillation of fuels (coal, wood, peat, lignite, oil shale) in lump form, in big chamber furnaces.** Ger. patent application I 78268/10a, dated Oct 2, 1944. In German. 1.50

1426 PB L 25616 **Production of hydrocarbon oils by pressure hydrogenation of coal, tars or mineral oils in liquids phase.** Ger. patent application I 78330/120, dated Sep 28, 1944. In German. 1.50

1427 PB L 25616 **Further development of the continous process for pressure hydrogenation of coal, tars or mineral oil, in liquid phase.** Ger. patent application I 78334/120, dated Oct 7, 1944. In German. 1.50

1428 PB L 25616 **Low temperature carbonization of solid fuels.** Ger. patent application I 78336/10a, dated Oct 7, 1944. In German. 1.50

1429 PB L 25616 **Producing dicarboxylic acids (with 5 and more C atoms) from saturated aliphatic hydrocarbons by oxidation with nitric acid.** Ger. patent application I 78338/12o, dated Oct 9, 1944. In German. 1.50

1430 PB L 25616 **Protective material against poison gas.** Ger. patent application I 52717/61b, dated Jul 3, 1935. In German. 1.50

1431 PB L 25616 **Textile material impermeable to gas.** Ger. patent application I 54420/61b, dated Feb 25, 1936. In German. 1.50

1432 PB L 25616 **Textile material impermeable to gas.** Ger. patent application I 54421/61b, dated Feb 25, 1936. In German. 1.50

1433 PB L 25616 **Producing self-igniting carbon.** Ger. patent application I 54616/12i, dated Mar 25, 1936. In German. 1.50

1434 PB L 25616 **Producing self-igniting carbon.** Ger. patent application I 55327/12i, dated Jun 24, 1936. In German. 1.50

1435 PB L 25616 **Producing organic compounds of elements of the 5th group of the periodical system.** Ger. patent application I 54818/120, dated Apr 18, 1936. In German. 1.50

1436 PB L 25616 — Producing self-igniting mixtures. Ger. patent application I 55332/78d, dated Jun 25, 1936. In German. 1.50

1437 PB L 25616 — Motor fuel. Ger. patent application I 56015/46a, dated Sep 25, 1936. In German. 1.50

1438 PB L 25616 — Process for operating combustion engines. Ger. patent application I 56043/46a6, dated Sep 30, 1936. In German. 1.50

1439 PB L 25616 — Producing self-igniting carbon. Ger. patent application I 56616/121, dated Dec 16, 1936. In German. 1.50

1440 PB L 25616 — Producing detonation compositions. Ger. patent application I 56911/78e, dated Jan 21, 1937. In German. 1.50

1441 PB L 25616 — Producing self-igniting carbon. Ger. patent application I 57007/121, dated Feb 2, 1937. In German. 1.50

1442 PB L 25616 — Production material resistant to poison gas. Ger. patent application I 57109/8k, dated Feb 13, 1937. In German. 1.50

1443 PB L 25616 — Textiles resistant to poison gas. Ger. patent application I 57110/61b, dated Feb 13, 1937. In German. 1.50

1444 PB L 25616 — Gas protective material. Ger. patent application I 57111/61b, dated Feb 13, 1937. In German. 1.50

1445 PB L 25616 — Gas protective material. Ger. patent application I 57112/61b, dated Feb 13, 1937. In German. 1.50

1446 PB L 25616 — Gas protective material. Ger. patent application I 57124/61b, dated Feb 15, 1937. In German. 1.50

1447 PB L 25616 — Producing gasoline for aircraft engines. Ger. patent application I 57290/46a6, dated Mar 5, 1937. In German. 1.50

1448 PB L 25616 — Oxidising agent. Ger. patent application I 57654/121, dated Apr 8, 1937. In German. 1.50

1449 PB L 25616 — Producing self-igniting carbon. Ger. patent application I 58095/121, dated May 28, 1937. In German. 1.50

1450 PB L 25616 — Explosive. Ger. patent application I 58119/78c, dated May 31, 1937. In German. 1.50

1451 PB L 25616 — Device for optical signalling. Ger. patent application I 58461/74d, dated Jul 8, 1937. In German. 1.50

1452 PB L 25616 — Preparing chlorination products from ketones. Ger. patent application I 58576/120, dated Jul 22, 1937. In German. 1.50

1453 PB L 25616 — Production highly concentrated (90-95%) formaldehyde. Ger. patent application I 58905/120, dated Aug 24, 1937. In German. 1.50

PB L 25613. I.G. FARBENINDUSTRIE A.G. Patent applications of Ludwigshafen Patent Office. 1942-1943. (The complete index of Ludwigshafen Patent office can be found at the beginning of Reel No. 162, PB 25606) (FIAT Microfilm Reel Patents 169, Frames 7716-8824) 1942-1943. 1108 f. Price: Microfilm-$6.00 - Enlargement Print-$111.00

The 288 individual items of this FIAT microfilm reel are listed below and will be available as enlargement prints. Please give the above PB number and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
7716-7717 PB L 25613	Process for finishing textiles. Ger. patent application I 73582 IVd/8k, dated Nov 13, 1942. In German.	$1.50
7718-7722 PB L 25613	Device for treating gases with liquids. Ger. patent application I 73613 IV/12a, dated Nov 18, 1942. In German.	1.50
7723-7727 PB L 25613	Process for producing halogenated hydrocarbons. Ger. patent application I 73596 IVd/12o, dated Nov 14, 1942. In German.	1.50
7728-7729 PB L 25613	Process for producing adipic acid dinitrile. Ger. patent application I 73595 IVd/12o, dated Nov 14, 1942. In German.	1.50
7730-7732 PB L 25613	Process for protective coatings on metals. Ger. patent application I 73609 IVa/48b, dated Nov 17, 1942. In German.	1.50
7733-7737 PB L 25613	Process for introducing simultaneously air (or oxygen) and combustible gases into gas producers or similar shaft furnaces. Ger. patent application I 73612 V/24a, dated Nov 17, 1942. In German.	1.50
7738-7741 PB L 25613	Filling of columns. Ger. patent application I 73618 IVa/12a, dated Nov 19, 1942. In German.	1.50
7742-7749 PB L 25613	Process for separating liquids from vapors. Ger. patent application I 73619 IVa/12a, dated Nov 19, 1942. In German.	1.50
7750-7753 PB L 25613	Control piston valve. Ger. patent application I 73628 XII/47g, dated Nov 19, 1942. In German.	1.50
7754-7758 PB L 25613	Process for cooling mixtures of ammonia, steam and carbon dioxide and/or hydrogen sulfide. Ger. patent application I 73638 IVb/12k, dated Nov 19, 1942. In German.	1.50
7759-7762 PB L 25613	Process for eliminating organic sulfur compounds from gases. Ger. patent application I 73620 IVb/26d, dated Nov 19, 1942. In German.	1.50
7763-7764 PB L 25613	Process for producing oils and greases for drilling. Ger. patent application I 73646 IVd/23e, dated Nov 20, 1942. In German.	1.50
7765-7768 PB L 25613	Process for continuous production of carboxylic esters. Ger. patent application I 73645 IVd/12e, dated Nov 20, 1942. In German.	1.50
7769-7774 PB L 25613	Process for manufacturing water soluble condensation products. Ger. patent application I 73654 IVc/12q, dated Nov 20, 1942. In German.	1.50
7775-7779 PB L 25613	Shut-off for liquids in quick-rotating apparatus parts. Ger. patent application I 73655 XII/47f, dated Nov 24, 1942. In German.	1.50
7780-7784 PB L 25613	Process for regenerating catalyst solutions. Ger. patent application I 73665 IVb/12g, dated Nov 25, 1942. In German.	1.50

7785-7787 PB L 25613 **Surface protection of machine parts or constructional parts with convex surface.** Ger. patent application I 73656 XII/47b, dated Nov 24, 1942. In German. 1.50

7788-7790 PB L 25613 **Process for producing dichlorethane.** Ger. patent application I 73657 IVd/12o, dated Nov 24, 1942. In German. 1.50

7791-7792 PB L 25613 **Depressing agents for animal skins and unhaired hides.** Ger. patent application I 73666 IVd/28a, dated Nov 25, 1942. In German. 1.50

7793-7794 PB L 25613 **Process for producing grinding materials.** Ger. patent application I 73727 IVe/39b, dated Nov 8, 1942. In German. 1.50

7795-7798 PB L 25613 **Process for producing synthetic resins.** Ger. patent application I 73702 IVc/39c, dated Nov 28, 1942. In German. 1.50

7799-7803 PB L 25613 **Process for producing hydrocarbons poor in hydrogen.** Ger. patent application I 73703 IVd/23b, dated Nov 28, 1942. In German. 1.50

7804-7806 PB L 25613 **Process for producing diacetylene glycols.** Ger. patent application I 73728 IVd/12o, dated Nov 1, 1942. In German. 1.50

7807-7808 PB L 25613 **Process for producing monoethers of 1,3-butylene glycol.** Ger. patent application I 73729 IVd/12o, dated Dec 1, 1942. In German. 1.50

7809-7812 PB L 25613 **Process for producing dicarboxylic esters.** Ger. patent application I 73730 IVd/12o, dated Dec 1, 1942. In German. 1.50

7813-7819 PB L 25613 **Process for producing dicarboxylic esters.** Ger. patent application I 73731 IVd/12o, dated Dec 1, 1942. In German. 1.50

7820-7825 PB L 25613 **Process for producing dicarboxylic esters.** Ger. patent application I 73744 IVd/12o, dated Dec 2, 1942. In German. 1.50

7826-7829 PB L 25613 **Detergents.** Ger. patent application I 73743 IVd/8i, dated Dec 2, 1942. In German. 1.50

7830-7832 PB L 25613 **Process for producing a cyclic acetal.** Ger. patent application I 73748 IVc/12q, dated Dec 2, 1942. In German. 1.50

7833-7837 PB L 25613 **Process for purifying gases or liquids.** Ger. patent application I 73752 IVb/12e, dated Dec 3, 1942. In German. 1.50

7838-7844 PB L 25613 **Process for producing dicarboxylic esters.** Ger. patent application I 73751 IVd/12o, dated Dec 3, 1942. In German. 1.50

7845-7847 PB L 25613 **Detergents.** Ger. patent application I 73778 IVd/8i, dated Dec 3, 1942. In German. 1.50

7848-7852 PB L 25613 **Process for producing perchlorethylene.** Ger. patent application I 73750 IVd/12o, dated Dec 3, 1942. In German. 1.50

7853-7858 PB L 25613 **Process for manufacturing condensation products of high-molecular weight.** Ger. patent application I 73749 IVe/39c, dated Dec 3, 1942. In German. 1.50

7859-7863 PB L 25613 **Device for processing ipecac and purge nuts (cicuta).** Ger. patent application I 73766 VII/29a, dated Dec 4, 1942. In German. 1.50

7864-7873 PB L 25613 **Device for measuring the measuring quantities by means of compensation.** Ger. patent application I 73782 IIb/42d, dated Dec 4, 1942. In German. 1.50

7874-7876 PB L 25613 **Process for cooling down liquids.** Ger. patent application I 73777 IVb/12e, dated Dec 4, 1942. In German. 1.50

7877-7880 PB L 25613 **Process for separating mixtures of alcohols and hydrocarbons.** Ger. patent application I 73795 IVd/12o, dated Dec 9, 1942. In German. 1.50

7881-7883 PB L 25613 **Process for working up aqueous dispersions of vinyl chloride polymers.** Ger. patent application I 73806 IVe/39b, dated Dec 10, 1942. In German. 1.50

7884-7886 PB L 25613 **Process for fluidizing polyvinyl chloride.** Ger. patent application I 73807 IVe/39b, dated Dec 10, 1942. In German. 1.50

7887-7890 PB L 25613 **Process for producing oxygen-containing compounds.** Ger. patent application I 73818 IVd/12o, dated Dec 11, 1942. In German. 1.50

7891-7894 PB L 25613 **Process for producing oxygen-containing compounds.** Ger. patent application I 73820 IVd/12o, dated Dec 12, 1942. In German. 1.50

7895-7898 PB L 25613 **Multi-way cock.** Ger. patent application I 73822 XII/47g, dated Dec 12, 1942. In German. 1.50

7899-7900 PB L 25613 **Can for food preservation.** Ger. patent application I 73832 III/64a, dated Dec 12, 1942. In German. 1.50

7901-7902 PB L 25613 **Process for producing plates (boards) or any other formed bodies from fibrous materials.** Ger. patent application I 73844 IVe/39b, dated Dec 14, 1942. In German. 1.50

7903-7904 PB L 25613 **Process for preparing cyclooctane.** Ger. patent application I 73871 IVc/12o, dated Dec 16, 1942. In German. 1.50

7905-7908 PB L 25613 **Process for producing finest metal powder from metal carbonyls.** Ger. patent application I 73845 IVb/12n, dated Dec 15, 1942. In German. 1.50

7909-7913 PB L 25613 **Device for regulating mixtures of gases and/or liquids, especially under high pressures.** Ger. patent application I 73846 IIb/42a, dated Dec 15, 1942. In German. 1.50

7914-7916 PB L 25613 **Plasticizer for superpolyamides.** Ger. patent application I 73870 IVc/39b, dated Dec 15, 1942. In German. 1.50

7917-7920 PB L 25613 **Process for producing organic compounds containing sulfur.** Ger. patent application I 73847 IVd/12o, dated Dec 15, 1942. In German. 1.50

7921-7922 PB L 25613 **Process for producing carboxylic acid amides.** Ger. patent application I 73886 IVc/12qu, dated Dec 16, 1942. In German. 1.50

7923-7924 PB L 25613 **Emulsifying agents.** Ger. patent application I 73873 IVd/12o, dated Dec 17, 1942. In German. 1.50

7925-7931 PB L 25613 — **Process for obtaining pure nitriles.** Ger. patent application I 73872 IVd/12o, dated Dec 17, 1942. In German. 1.50

7932-7933 PB L 25613 — **Drying low boiling liquids.** Ger. patent application I 73914 IVb/12d, dated Dec 17, 1942. In German. 1.50

7934-7937 PB L 25613 — **Adhesives for sheet-like articles.** Ger. patent application I 73875 IVd/75c, dated Dec 17, 1942. In German. 1.50

7938-7939 PB L 25613 — **Process for producing tetrahydrofuranes.** Ger. patent application I 73874 IVc/12q, dated Dec 17, 1942. In German. 1.50

7940-7942 PB L 25613 — **Process for separating low boiling gas mixtures.** Ger. patent application I 73887 Ia/17g, dated Dec 18, 1942. In German. 1.50

7943-7946 PB L 25613 — **Process for producing aliphatic dinitriles.** Ger. patent application I 73888 IVd/12o, dated Dec 18, 1942. In German. 1.50

7947-7948 PB L 25613 — **Process for producing a hydrocarbon.** Ger. patent application I 73915 IVc/12o, dated Dec 19, 1942. In German. 1.50

7949-7951 PB L 25613 — **Process for obtaining unsaturated hydrocarbons with high-molecular weight.** Ger. patent application I 73901 IVd/12o, dated Dec 19, 1942. In German. 1.50

7952-7955 PB L 25613 — **Process for producing monoesters of dicarboxylic acids.** Ger. patent application I 73916 IVd/12o, dated Dec 19, 1942. In German. 1.50

7956-7958 PB L 25613 — **Process for deparaffing oils.** Ger. patent application I 73917 IVd/23b, dated Dec 21, 1942. In German. 1.50

7959-7963 PB L 25613 — **Process for manufacturing condensation products.** Ger. patent application I 73921 IVc/39c, dated Dec 22, 1942. In German. 1.50

7964-7972 PB L 25613 — **Process for producing halides of cyclooctatetraene.** Ger. patent application I 73918 IVc/12o, dated Dec 22, 1942. In German. 1.50

7973-7976 PB L 25613 — **Process for eliminating acetylene from gaseous mixtures.** Ger. patent application I 73920 IVd/26d, dated Dec 22, 1942. In German. 1.50

7977-7979 PB L 25613 — **Process for producing molded bodies.** Ger. patent application I 73919 IVc/39b, dated Dec 22, 1942. In German. 1.50

7980-7981 PB L 25613 — **Process for producing carboxylic acid dimethylol amides.** Ger. patent application I 73971 IVd/12o, dated Dec 23, 1942. In German. 1.50

7982-7983 PB L 25613 — **Process for increasing the effectiveness of proteases.** Ger. patent application I 73948 IVd/12o, dated Dec 23, 1942. In German. 1.50

7984-7986 PB L 25613 — **Process for producing aliphatic dicarboxylic acid nitriles.** Ger. patent application I 73945 IVd/12o, dated Dec 23, 1942. In German. 1.50

7987-7991 PB L 25613 — **Method for processing residues of the pressure hydrogenation of coal, tars and mineral oils.** Ger. patent application I 73972 VIb/10e, dated Dec 28, 1942. In German. 1.50

7992-7995 PB L 25613 — **Process for recovering alcohols or their sulfuric acid esters.** Ger. patent application I 74017 IVd/12o, dated Dec 28, 1942. In German. 1.50

7996-7998 PB L 25613 — **Plastic materials.** Ger. patent application I 74003 IVc/39b, dated Dec 28, 1942. In German. 1.50

7999-8000 PB L 25613 — **Process for producing watersoluble derivatives of nitroacetylene diureas.** Ger. patent application I 74004 IVc/12o, dated Dec 28, 1942. In German. 1.50

8001-8003 PB L 25613 — **Process for improving the thermic oxidizing decomposition of synthetic rubber.** Ger. patent application I 74005 IVc/39b, dated Dec 28, 1942. In German. 1.50

8004-8005 PB L 25613 — **Process for obtaining diacetylene from its mixtures with vinylacetylene.** Ger. patent application I 73973 IVd/12o, dated Dec 28, 1942. In German. 1.50

8006-8009 PB L 25613 — **Process for producing saturated hydrocarbons.** Ger. patent application I 74006 IVc/12o, dated Dec 28, 1942. In German. 1.50

8010-8011 PB L 25613 — **Device for protecting apparatus against heat loss.** Ger. patent application I 73974 III/47f, dated Dec 28, 1942. In German. 1.50

8012-8013 PB L 25613 — **Process for producing polyacetals.** Ger. patent application I 74018 IVd/12o, dated Dec 28, 1942. In German. 1.50

8014-8016 PB L 25613 — **Tightening device for welding flanges and similar machine parts onto pipe lines.** Ger. patent application I 73955 Ib/49h, dated Dec 29, 1942. In German. Partially illegible. 1.50

8017-8019 PB L 25613 — **Process for producing hemi-ethers of 1,3-glycols.** Ger. patent application I 73975 IVd/12o, dated Dec 30, 1942. In German. 1.50

8020-8023 PB L 25613 — **Process for preventing salt or salt mixtures from caking.** Ger. patent application I 74007 IV/16, dated Dec 30, 1942. In German. Partly illegible 1.50

8024-8025 PB L 25613 — **Baking powders, effervescent powders etc.** Ger. patent application I 73976 IVa/2o, dated Dec 31, 1942. In German. 1.50

8026-8032 PB L 25613 — **Process for producing hydrocarbons.** Ger. patent application I 67903 IVd/12o, dated Sep 26, 1940. In German. 1.50

8033-8036 PB L 25613 — **Process for producing mixed cements.** Ger. patent application I 74008 VIb/80b, dated Jan 4, 1943. In German. 1.50

8037-8038 PB L 25613 — **Process for producing unsaturated hydrocarbon of high-molecular weight.** Ger. patent application I 74028 IVc/12o, dated Jan 4, 1943. In German. 1.50

8039-8044 PB L 25613 — **Process for manufacturing condensation products.** Ger. patent application I 74029 IVc/12o, dated Jan 6, 1943. In German. 1.50

8045-8046 PB L 25613 — **Process for separating diacetylene from mixtures.** Ger. patent application I 74019 IVd/12o, dated Jan 6, 1943. In German. 1.50

8047-8049 PB L 25613 **Process for eliminating salts from aldol containing liquids.** Ger. patent application I 74020 IVd/12o, dated Jan 6, 1943. In German. 1.50

8050-8051 PB L 25613 **Plasticizer for synthetic, film-forming materials of high-molecular weight.** Ger. patent application I 74030 IVe/39b, dated Jan 6, 1943. In German. 1.50

8052-8055 PB L 25613 **Process for separating solids from oil residues.** Ger. patent application I 74044 IVd/23b, dated Jan 8, 1942. In German. 1.50

8056-8058 PB L 25613 **Process for producing alkyl adipic acids.** Ger. patent application I 74057 IVd/12o, dated Jan 9, 1943. In German. 1.50

8059-8062 PB L 25613 **Process for producing ammonium bicarbonate.** Ger. patent application I 74039 IVb/12k, dated Jan 8, 1943. In German. 1.50

8063-8065 PB L 25613 **Process for protecting metals against acid reacting liquids.** Ger. patent application I 74038 VIa/48d, dated Jan 8, 1943. In German. 1.50

8066-8069 PB L 25613 **Process for producing anti-knock gasoline.** Ger. patent application I 74059 IVd/23b, dated Jan 11, 1943. In German. 1.50

8070-8071 PB L 25613 **Process for producing diethers of 1.3 glycols.** Ger. patent application I 74061 IVd/12o, dated Jan 12, 1943. In German. 1.50

8072-8073 PB L 25613 **Process for producing carbonyl compounds.** Ger. patent application I 74064 IVd/12o, dated Jan 12, 1943. In German. 1.50

8074-8077 PB L 25613 **Process for absorption of nitric oxide.** Ger. patent application I 74062 IVb/12i, dated Jan 12, 1943. In German. 1.50

8078-8085 PB L 25613 **Process for carrying out hydrogenation reactions.** Ger. patent application I 74060 IVb/12g, dated Jan 12, 1943. In German. 1.50

8086-8090 PB L 25613 **Process for producing unsaturated halogenated hydrocarbons.** Ger. patent application I 74070 IVd/12o, dated Jan 13, 1943. In German. 1.50

8091-8093 PB L 25613 **Process for fixing tiles, ceramic plates, etc to plaster- or brickwork.** Ger. patent application I 74182 V/37d, dated Jan 14, 1943. In German. 1.50

8094-8096 PB L 25613 **Process for producing hydroxylammonium salts.** Ger. patent application I 74110 IVb/12i, dated Jan 15, 1943. In German. 1.50

8097-8101 PB L 25613 **Process for eliminating carbon monoxide from gases.** Ger. patent application I 74085 IVb/28d, dated Jan 15, 1943. In German. 1.50

8102-8104 PB L 25613 **Process for producing compounds containing carboxylic acid chloride groups.** Ger. patent application I 74087 IVc/12o, dated Jan 15, 1943. In German. 1.50

8105-8108 PB L 25613 **Process for manufacturing high-molecular condensation products.** Ger. patent application I 74086 IVe/39c, dated Jan 15, 1943. In German. 1.50

8109-8115 PB L 25613 **Process for improving the use of fibrous material.** Ger. patent application I 74112 IVd/8k, dated Jan 16, 1943. In German. 1.50

8116-8120 PB L 25613 **Process for producing emulsifiers.** Ger. patent application I 74125 IVd/12o, dated Jan 16, 1943. In German. 1.50

8121-8125 PB L 25613 **Injection machine with worm conveyor.** Ger. patent application I 74124 XII/39a, dated Jan 16, 1943. In German. 1.50

8126-8130 PB L 25613 **Process for processing plastic materials.** Ger. patent application I 74094 XII/39a, dated Jan 16, 1943. In German. 1.50

8131-8137 PB L 25613 **Process for separating aromatic 1,2 dihydroxy compounds.** Ger. patent application I 74096 IVc/12q, dated Jan 18, 1943. In German. 1.50

8138-8141 PB L 25613 **Process for producing isocyclic compounds.** Ger. patent application I 74097 IVc/12o, dated Jan 18, 1943. In German. 1.50

8142-8144 PB L 25613 **Plasticizer for synthetic rubber.** Ger. patent application I 74095 IVe/39b, dated Jan 18, 1943. In German. 1.50

8145-8151 PB L 25613 **Process for producing metal salts of organic sulfonic acids.** Ger. patent application I 74113 IVd/12o, dated Jan 18, 1943. In German. 1.50

8152-8153 PB L 25613 **Process for preparing acetylaldehyde.** Ger. patent application I 74111 IVd/12o, dated Jan 19, 1943. In German. 1.50

8154-8156 PB L 25613 **Process for manufacturing condensation products of high-molecular weight.** Ger. patent application I 74115 IVe/39c, dated Jan 19, 1943. In German. 1.50

8157-8159 PB L 25613 **Process for producing zirconium hydroxide.** Ger. patent application I 74114 IVb/12m, dated Jan 19, 1943. In German. 1.50

8160-8161 PB L 25613 **Process for decomposition of air.** Ger. patent application I 74098 Ia/17g, dated Jan 20, 1943. In German. 1.50

8162-8165 PB L 25613 **Process for producing water gas or synthesis gas.** Ger. patent application I 74150 V/24a, dated Jan 20, 1943. In German. 1.50

8166-8167 PB L 25613 **Process for producing ester halides of dicarboxylic acids.** Ger. patent application I 74137 IVd/12o, dated Jan 21, 1943. In German. 1.50

8168-8172 PB L 25613 **Process for recovering oxalic-, succinic- and adipic acid from their mixtures.** Ger. patent application I 74138 IVd/12o, dated Jan 21, 1943. In German. 1.50

8173-8175 PB L 25613 **Process for producing 1,3-butylene glycol.** Ger. patent application I 74139 IVd/12o, dated Jan 21, 1943. In German. 1.50

8176-8181 PB L 25613 **Process for producing alkyladipic acids.** Ger. patent application I 74141 IVc/12o, dated Jan 22, 1943. In German. 1.50

8182-8183 PB L 25613 **Process for producing 2-methyl-1-butene-3-one.** Ger. patent application

I 74140 IVd/12o, dated Jan 22, 1943. In German. 1.50

8184-8185 PB L 25613 **Process for preparing cyclohexanol.** Ger. patent application I 74151 IVc/12o, dated Jan 22, 1943. In German. 1.50

8186-8190 PB L 25613 **Process for producing oxygen containing compounds.** Ger. patent application I 74142 IVd/12o, dated Jan 23, 1943. In German. 1.50
May reproduce poorly.

8191-8194 PB L 25613 **Process for continous production of carboxylic esters.** Ger. patent application I 74143 IVd/12o, dated Jan 23, 1943. In German. 1.50

8195-8198 PB L 25613 **Process for reprinting documents, drawings, printed matter etc.** Ger. patent application I 74144 IVa/15k, dated Jan 25, 1943. In German. 1.50

8199-8203 PB L 25613 **Process for carrying out catalytic reactions.** Ger. patent application I 74184 IVd/12g, dated Jan 26, 1943. In German. 1.50

8204-8206 PB L 25613 **Process for joining work pieces with anticorrosive coatings for protection.** Ger. patent application I 74160 Ib/49h, dated Jan 26, 1943. In German. 1.50

8207-8213 PB L 25613 **Device for metering quantities of flowing liquids or gases, especially under high pressure.** Ger. patent application I 74152 IXb/42e, dated Jan 26, 1943. In German. 1.50

8214-8217 PB L 25613 **Device for gentle drying of fuels in rinsing gas driers.** Ger. patent application I 74159 V/82a, dated Jan 26, 1943. In German. 1.50

8218-8220 PB L 25613 **Process for manufacturing nitrogenous condensation products.** Ger. patent application I 74183 IVc/12q, dated Jan 26, 1943. In German. 1.50

8221-8224 PB L 25613 **Process for separating catalysts from liquids and remixing them with fresh starting material.** Ger. patent application I 74185 IVb/12g, dated Jan 27, 1943. In German. 1.50

8225-8230 PB L 25613 **Process for improving the waterproof quality of objects containing fibrous and organic binding materials.** Ger. patent application I 74205 IVd/8k, dated Jan 27, 1943. In German. 1.50

8231 PB L 25613 **Tanning process.** Ger. patent application I 74193 IVd/28a, dated Jan 27, 1943. In German. 1.50

8232-8236 PB L 25613 **Process for carrying out catalytic reactions in the gas phase.** Ger. patent application I 74225 IVb/12g, dated Jan 29, 1943. In German. 1.50

8237-8239 PB L 25613 **Process for producing of shoes.** Ger. patent application I 74194 VII/71a, dated Jan 29, 1943. In German.

8240-8242 PB L 25613 **Process for producing polybasic alcohols.** Ger. patent application I 74206 IVd/12o, dated Jan 29, 1943. In German. 1.50
Legibility poor.

8243-8246 PB L 25613 **Process for concentrating cobalt in cobalt containing raw products.** Ger. patent application I 74186 VI/40a, dated Jan 28, 1943. In German. 1.50

8247-8250 PB L 25613 **Process for the catalytic conversion of liquids.** Ger. patent application I 74226 IVb/12g, dated Jan 30, 1943. In German. 1.50

8251-8253 PB L 25613 **Preserving agents for green fodder.** Ger. patent application I 74228 IVb/53g, dated Jan 30, 1943. In German. 1.50

8254-8255 PB L 25613 **Preserving agents for green fodder.** Ger. patent application I 74229 IVb/53g, dated Jan 30, 1943. In German. 1.50

8256-8257 PB L 25613 **Preserving agents for green fodder.** Ger. patent application I 74230 IVb/53g, dated Jan 30, 1943. In German. 1.50

8258-8263 PB L 25613 **Process for producing alkylated hydrazines.** Ger. patent application I 69474 IVc/12q, dated Apr 28, 1941. In German. 1.50

8264-8270 PB L 25613 **Reaction chamber with device for reactivating the solids contained in it.** Ger. patent application I 73132 IVb/12g, dated Sep 14, 1942. In German. 1.50

8271-8275 PB L 25613 **Polymerisation of olefins.** Ger. patent application I 73211 IVd/12o, dated Sep 23, 1942. In German. 1.50

8276-8281 PB L 25613 **Process for producing stable nickel (1)-cyanide solutions.** Ger. patent application I 73209 IVb/12k, dated Sep 23, 1942. In German. 1.50

8282-8284 PB L 25613 **Process for eliminating carbon monoxide from olefin containing gases.** Ger. patent application I 73208 IVb/26d, dated Sep 23, 1942. In German. 1.50

8285-8290 PB L 25613 **Process for improving products obtained by reduction of carbon monoxide.** Ger. patent application I 73210 IVc/23b, dated Sep 23, 1942. In German. 1.50

8291-8294 PB L 25613 **Process for producing ethers.** Ger. patent application I 74238 IVd/12o, dated Feb 2, 1943. In German. 1.50
May reproduce poorly.

8295-8296 PB L 25613 **Process for producing carbon monoxide or gases rich in carbon monoxide.** Ger. patent application I 74239 V/24e, dated Feb 3, 1943. In German. 1.50

8297-8303 PB L 25613 **Process for producing compounds containing oxygen.** Ger. patent application I 74240 IVd/12o, dated Feb 3, 1943. In German. 1.50

8304-8306 PB L 25613 **Emulsion polymerisation of ethylene.** Ger. patent application I 74259 IVc/29c, dated Feb 3, 1943. In German. 1.50
Legibility poor.

8307-8309 PB L 25613 **Process for manufacturing condensation products.** Ger. patent application I 74260 IVc/39c, dated Feb 4, 1943. In German. 1.50

8310-8314 PB L 25613 **Process for low temperature carbonisation of bituminous fuels.** Ger. patent application I 74253 VIb/10a, dated Feb 5, 1943. In German. 1.50

8315-8318 PB L 25613 **Process for decomposition of alkali amalgams.** Ger. patent application I 74270 IVb/12 1, dated Feb 6, 1943. In German. 1.50

8319-8324 PB L 25613 **Process for converting nitrites to nitrates.** Ger. patent application

I 74269 IV/12 l, dated Feb 6, 1943. In German. 1.50
May reproduce poorly.

8325-8326 PB L 25613 **Process for producing dicarboxylic acids.** Ger. patent application I 74319 IVd/12o, dated Feb 9, 1943. In German. 1.50

8327-8330 PB L 25613 **Process for producing organic oxygen compounds.** Ger. patent application I 74320 IVd/12o, dated Feb 9, 1943. In German. 1.50

8331-8332 PB L 25613 **Process for producing 2-ethyl-1-hexanol.** Ger. patent application I 74321 IVd/12o, dated Feb 10, 1943. In German. 1.50
Partly illegible.

8333-8336 PB L 25613 **Dust separating centrifuge.** Ger. patent application I 74280 VII/50o, dated Feb 10, 1943. In German. 1.50
Illegible.

8337-8343 PB L 25613 **Process for producing acrylic acid, its derivatives and substitutes.** Ger. patent application I 74303 IVc/12o, dated Feb 11, 1943. In German. 1.50
Illegible.

8344-8350 PB L 25613 **Process for liquefying solids containing carbon.** Ger. patent application I 74322 IVd/12o, dated Feb 11, 1943. In German. 1.50
May reproduce poorly.

8351-8354 PB L 25613 **Process for preparation of esters.** Ger. patent application I 74311 IVc/12o, dated Feb 12, 1943. In German. 1.50
Illegible.

8355-8356 PB L 25613 **Fireproofing agents.** Ger. patent application I 74332 IVc/22g, dated Feb 12, 1943. In German. 1.50
Legibility poor.

8357-8359 PB L 25613 **Heating material.** Ger. patent application I 74312 IVb/10b, dated Feb 13, 1943. In German. 1.50
Legibility poor.

8360-8363 PB L 25613 **Process for separating aromatic 1,2-dihydroxy compounds from mixtures.** Ger. patent application I 74313 IVc/12q, dated Feb 13, 1943. In German. 1.50
Illegible.

8364-8368 PB L 25613 **Process for concentrating foaming liquids by evaporation.** Ger. patent application I 74352 IVa/12a, dated Feb 16, 1943. In German. 1.50
Illegible

8369-8373 PB L 25613 **Stable methylol compounds.** Ger. patent application I 74333 IVc/12o, dated Feb 16, 1943. In German. 1.50

8374-8376 PB L 25613 **Plasticizer.** Ger. patent application I 74346 IVc/39b, dated Feb 17, 1943. In German. 1.50

8377-8378 PB L 25613 **Process for producing dicyclohexylamine.** Ger. patent application I 74365 IVc/12o, dated Feb 17, 1943. In German. 1.50

8379 PB L 25613 **Process for improving tanning material.** Ger. patent application I 74437 IVd/12o, dated Feb 17, 1943. In German. 1.50

8380-8382 PB L 25613 **Iron saving bridge constructed with the help of tubes.** Ger. patent application I 74353 V/19d, dated Feb 17, 1943. In German. 1.50

8383-8386 PB L 25613 **Process for production of thioether-carboxylic acids.** Ger. patent application I 74354 IVd/12o, dated Feb 18, 1943. In German. 1.50

8387-8389 PB L 25613 **Process for polymerization of diolefins.** Ger. patent application I 74366 IVa/39o, dated Feb 19, 1943. In German. 1.50

8390-8397 PB L 25613 **Process for manufacturing condensation products.** Ger. patent application I 74367 IVc/39c, dated Feb 20, 1943. In German. 1.50

8398-8400 PB L 25613 **Process for producing alcohols from carboxylic acids or their esters.** Ger. patent application I 74390 IVd/12o, dated Feb 20, 1943. In German. 1.50

8401-8403 PB L 25613 **Lacquers.** Ger. patent application I 74393 IVc/22h, dated Feb 22, 1943. In German. 1.50

8404-8409 PB L 25613 **Process for manufacturing dehydrogenation products of primary or secondary alcohols.** Ger. patent application I 74391 IVd/12o, dated Feb 22, 1943. In German. 1.50

8410-8412 PB L 25613 **Process for separating silicic acid.** Ger. patent application I 74392 IVb/12d, dated Feb 22, 1943. In German. 1.50

8413-8415 PB L 25613 **Process for separating iron and manganese.** Ger. patent application I 74394 IVb/12m, dated Feb 23, 1943. In German. 1.50

8416-8418 PB L 25613 **Process for treating bleaching earth.** Ger. patent application I 74395 IVb/12i, dated Feb 23, 1943. In German. 1.50

8419-8420 PB L 25613 **Process for producing oxygen-containing aromatic compounds from cycloalkanes.** Ger. patent application I 74406 IVd/12o, dated Feb 23, 1943. In German. 1.50

8421-8425 PB L 25613 **Process for producing bleaching earths from crude clay.** Ger. patent application I 74396 IVb/12i, Feb 23, 1943. In German. 1.50
Partly illegible.

8426-8428 PB L 25613 **Process for producing resin lacquers capable of being hardened.** Ger. patent application I 74416 IVc/22h, dated Feb 24, 1943. In German. 1.50

8429-8436 PB L 25613 **Process for producing lacquer resins capable of being hardened.** Ger. patent application I 74415 IVc/39c, dated Feb 24, 1943. In German. 1.50
Illegible

8437-8441 PB L 25613 **Process for producing lacquer resins capable of being hardened.** Ger. patent application I 74414 IVc/39o, dated Feb 24, 1943. In German. 1.50

8442-8447 PB L 25613 **Process for producing lacquer resins capable of being hardened.** Ger. patent application I 74412 IVc/39c, dated Feb 24, 1943. In German. 1.50
May reproduce poorly.

8448-8449 PB L 25613 **Process for producing hydroxytetrahydrofurans.** Ger. patent application I 74413 IVc/12q, dated Feb 24, 1943. In German. 1.50

8450-8453 PB L 25613 **Process for chlorinating saturated hydrocarbons.** Ger. patent application I 74425 IVd/12o, dated Feb 24, 1943. In German. 1.50

8454-8458 PB L 25613 **Process for preparing oily hydrocarbons from mixtures of solids.** Ger. patent application I 74438 IVe/12o, dated Feb 24, 1943. In German. 1.50

8459-8464 PB L 25613 **Process for manufacturing condensation products.** Ger. patent application I 74441 IVc/39e, dated Feb 25, 1943. In German. 1.50
Will reproduce poorly.

8465-8467 PB L 25613 **Process for producing organic oxygen compounds.** Ger. patent application I 74440 IVd/12o, dated Feb 25, 1943. In German. 1.50

8468-8471 PB L 25613 **Reactivating bleaching earth.** Ger. patent application I 74444 IVb/12i, dated Feb 26, 1943. In German. 1.50
Partly illegible.

8472-8474 PB L 25613 **Fillers for columns.** Ger. patent application I 74439 IVb/12e, dated Feb 25, 1943. In German. 1.50

8475-8478 PB L 25613 **Process for preparing carbon black and hydrogen chloride from chlorinated hydrocarbons.** Ger. patent application I 74442 IVb/12i, dated Feb 26, 1943. In German. 1.50

8479-8481 PB L 25613 **Process for producing dry hydrogen chloride.** Ger. patent application I 74443 IVb/12i, dated Feb 26, 1943. In German. 1.50

8482-8486 PB L 25613 **Process for preparing chlorine from gaseous mixtures.** Ger. patent application I 74462 IVb/12i, dated Feb 27, 1943. In German. 1.50

8487-8490 PB L 25613 **Stabilizing synthetic rubber.** Ger. patent application I 74446 IVc/39b, dated Feb 27, 1943. In German. 1.50

8491-8494 PB L 25613 **Process for gasifying finely granulated fuels.** Ger. patent application I 74445 V/24e, dated Feb 27, 1943. In German. 1.50

8495-8498 PB L 25613 **Process for producing highly knock resistant fuels.** Ger. patent application I 73305 IVd/12o, dated Oct 12, 1942. In German. 1.50

8499-8502 PB L 25613 **Process for continuous lacquering of containers.** Ger. patent application I 74447 IVd/75c, dated Mar 1, 1943. In German. 1.50

8503-8508 PB L 25613 **Process for preparing brominated hydrocarbons.** Ger. patent application I 74479 IVd/12o, dated Mar 2, 1943. In German. 1.50
Partly illegible.

8509-8511 PB L 25613 **Process for producing containers resistant to chemicals.** Ger. patent application I 74467 IVb/12f, dated Mar 1, 1943. In German. 1.50

8512-8513 PB L 25613 **Process for converting unsaturated aliphatic nitrohydrocarbons.** Ger. patent application I 74464 IVd/12o, dated Mar 2, 1943. In German. 1.50

8514-8517 PB L 25613 **Production of alcohols of high-molecular weight.** Ger. patent applicationI 74465 IVd/12o, dated Mar 2, 1943. In German. 1.50

8518-8519 PB L 25613 **Process for producing oxalkylthioethers.** Ger. patent application I 74466 IVd/12o, dated Mar 2, 1943. In German. 1.50

8520-8523 PB L 25613 **Plasticizer.** Ger. patent application I 74463 IVc/39b, dated Mar 2, 1943. In German. 1.50

8524-8527 PB L 25613 **Process for tanning hides.** Ger. patent application I 74480 IVd/28a, dated Mar 3, 1943. In German. 1.50

8528-8530 PB L 25613 **Wax pastes for polishes.** Ger. patent application I 74492 IVa/22g, dated Mar 3, 1943. In German. 1.50

8531-8532 PB L 25613 **Process for dyeing leather.** Ger. patent application I 74481 IVd/8m, dated Mar 3, 1943. In German. 1.50
Illegible.

8533-8536 PB L 25613 **Process for producing inks and printing colors stable in water.** Ger. patent application I 74497 IVc/22g, dated Mar 4, 1943. In German. 1.50

8537-8542 PB L 25613 **Process for producing glycol.** Ger. patent application I 74494 IVd/12o, dated Mar 4, 1943. In German. 1.50
May reproduce poorly.

8543-8545 PB L 25613 **Process for reactivating of purifying ion exchangers.** Ger. patent application I 74504 IVb/12g, dated Mar 4, 1943. In German. 1.50
Partly illegible.

8546-8548 PB L 25613 **Process for producing heterocyclic compounds.** Ger. patent application I 74493 IVa/12p, dated Mar 4, 1943. In German. 1.50

8549-8553 PB L 25613 **Process for producing compounds containing oxygen.** Ger. patent application I 74496 IVd/12o, dated Mar 4, 1943. In German. 1.50

8554-8561 PB L 25613 **Process for manufacturing condensation products.** Ger. patent application I 74495 IVd/12o, dated Mar 4, 1943. In German. 1.50
Partly illegible.

8562-8563 PB L 25613 **Process for preparing cobalt containing matte.** Ger. patent application I 74462 IVa/40a, dated Mar 4, 1943. In German. 1.50
Illegible.

8564-8567 PB L 25613 **Process for dissolving platinum metals.** Ger. patent application I 74537 IVb/40a, dated Mar 5, 1943. In German. 1.50
Illegible.

8568-8572 PB L 25613 **Process for preparing pure acetonitrile.** Ger. patent application I 74498 IVd/12o, dated Mar 5, 1943. In German. 1.50
May reproduce poorly.

8573-8574 PB L 25613 **Electric insulating material.** Ger. patent application I 74506 VIIIb/21e, dated Mar 6, 1943. In German. 1.50
Illegible

8575-8577 PB L 25613 **Process for manufacturing condensation products.** Ger. patent application I 74517 IVe/39o, dated Mar 6, 1943. In German. 1.50

8578-8580 PB L 25613 **Plasticizer for plastic material.** Ger. patent application I 74518 IVe/39b, dated Mar 8, 1943. In German. 1.50

8581-8586 PB L 25613 **Process for processing gases containing nitric oxide.** Ger. patent application I 74551 IVb/12i, dated Mar 9, 1943. In German. 1.50
Illegible

8587-8588 PB L 25613 **Process for producing methylol compounds.** Ger. patent application I 74538 IVc/139c, dated Mar 9, 1943. In German. 1.50

8589-8595 PB L 25613 **Process for producing resins.** Ger. patent application I 74539 IVc/39c, dated Mar 10, 1943. In German. 1.50

8596-8600 PB L 25613 **Process for eliminating sulfur chlorids from gases.** Ger. patent application I 74524 IVb/12e, dated Mar 10, 1943. In German. 1.50
Illegible

8601-8604 PB L 25613 **Process for producing warlike substances.** Ger. patent application I 74553 IVd/12c, dated Mar 10, 1943. In German. 1.50

8605-8607 PB L 25613 **Heater for circulation evaporators.** Ger. patent application I 74540 IVa/12a, dated Mar 11, 1943. In German. 1.50

8608-8610 PB L 25613 **Process for producing watersoluble plastics.** Ger. patent application I 74541 IVc/39b, dated Mar 11, 1943. In German. 1.50
May reproduce poorly.

8611-8613 PB L 25613 **Process for the gentle treatment of laundry.** Ger. patent application I 74554 IVd/81, dated Mar 11, 1943. In German. 1.50
Illegible.

8614-8617 PB L 25613 **Process for manufacturing condensation products.** Ger. patent application I 74542 IVc/39c, dated Mar 11, 1943. In German. 1.50

8618-8620 PB L 25613 **Process for producing sulfur-containing organic compounds.** Ger. patent application I 74579 IVd/12c, dated Mar 16, 1943. In German. 1.50

8621-8624 PB L 25613 **Process for preparing succinic- and adipic acid, and if necessary oxalic acid, from their mixtures.** Ger. patent application I 74578 IVd/12c, dated Mar 16, 1943. In German. 1.50
Partly illegible.

8625-8630 PB L 25613 **Process for producing polymeric compounds.** Ger. patent application I 74580 IVc/39c, dated Mar 16, 1943. In German. 1.50

8631-8633 PB L 25613 **Agents for treating hides and leather.** Ger. patent application I 74595 IVd/68a, dated Mar 17, 1943. In German. 1.50

8634-8637 PB L 25613 **Casting waxes, especially for dental purposes.** Ger. patent application I 74604 IVc/39b, dated Mar 18, 1943. In German. 1.50

8638-8643 PB L 25613 **Process for gasifying fuels without leaving practically any residues.** Ger. patent application I 74586 V/24e, dated Mar 18, 1943. In German. 1.50

8644-8645 PB L 25613 **Process for magnetorous carriers.** Ger. patent application I 74582 IIa/42g, dated Mar 18, 1943. In German. 1.50

8646-8647 PB L 25613 **Process for producing perchloroethylene.** Ger. patent application I 74605 IVd/12c, dated Mar 19, 1943. In German. 1.50

8648-8649 PB L 25613 **Process for recovering organic substances from their aqueous solutions.** Ger. patent application I 74710 IVa/12a, dated Mar 20, 1943. In German. 1.50

8650-8652 PB L 25613 **Process for manufacturing oxidation products from paraffins.** Ger. patent application I 74530 IVd/23b, dated Mar 20, 1943. In German. 1.50

8653-8656 PB L 25613 **Reaction vessel.** Ger. patent application I 74621 IVb/12g, dated Mar 20, 1943. In German. 1.50

8657-8659 PB L 25613 **Process for production organic compounds containing halogen and sulfur.** Ger. patent application I 74631 IVd/12c, dated Mar 20, 1943. In German. 1.50
Illegible.

8660-8663 PB L 25613 **Process for producing rubber-like emulsion polymers.** Ger. patent application I 74606 IVc/39c, dated Mar 22, 1943. In German. 1.50

8664-8665 PB L 25613 **Process for carrying out catalytic reactions.** Ger. patent application I 74522 IVb/12g, dated Mar 22, 1943. In German. 1.50

8666-8667 PB L 25613 **Process for producing aliphatic halonitrocarboxylic acids and their derivatives.** Ger. patent application I 74632 IVd/12c, dated Mar 22, 1943. In German. 1.50

8668-8670 PB L 25613 **Process for producing drying oils.** Ger. patent application I 74635 IVc/22h, dated Mar 23, 1945. In German. 1.50

8671-8673 PB L 25613 **Process for producing drying binding-agents.** Ger. patent application I 74672 IVc/12a, dated Mar 23, 1945. In German. 1.50

8674-8677 PB L 25613 **Process for producing nitrogen free synthesis gases of equal composition in metallurgical melting furnaces.** Ger. patent application I 74634 V/24e, dated Mar 23, 1943. In German. 1.50

8678-8684 PB L 25613 **Polymerization process.** Ger. patent application I 74636 IVc/29c, dated Mar 23, 1943. In German. 1.50

8685-8687 PB L 25613 **Process for producing magnetorous carriers.** Ger. patent application I 74623 IIa/42g, dated Mar 23, 1943. In German. 1.50
Illegible.

8688-8690 PB L 25613 **Process for producing hard boards made of wood fiber.** Ger. patent application I 74637 IVc/39b, dated Mar 24, 1943. In German. 1.50

8691-8694 PB L 25613 **Regulating the absorbability of acid and substantive dyes.** Ger. patent application I 74648 IVd/8a, dated Mar 24, 1943. In German. 1.50

8695-8697 PB L 25613 **Arrangement for grounding and short-circuiting electrical conductors.** Ger. patent application I 74653 VIIIb/21c, dated Mar 25, 1943. In German. 1.50
Partly illegible.

8698-8699 PB L 25613 **Process for producing lactams containing nitrile groups.** Ger. patent application I 74673 IVc/12p, dated Mar 25, 1943. In German. 1.50

8700-8701 PB L 25613 **Preparation of cyclic ethers.** Ger. patent application I 74674 IVc/12g, dated Mar 25, 1943. In German. 1.50

8702-8703 PB L 25613 **Process for producing dicarboxylic acids.** Ger. patent I 74664 IVd/12c, dated Mar 25, 1943. In German. 1.50
Illegible.

8704-8705 PB L 25613 **Process for producing sulfur-containing compounds.** Ger. patent I 74699 IVd/12o, dated Mar 26, 1943. In German. 1.50
Illegible.

8706-8708 PB L 25613 **Process for producing unsaturated nitriles.** Ger. patent application I 74675 IVc/12o, dated Mar 26, 1943. In German. 1.50

8709-8711 PB L 25613 **Process for regeneration of copper catalysts.** Ger. patent application I 74700 IVc/12o, dated Mar 27, 1943. In German. 1.50
May reproduce poorly.

8712-8715 PB L 25613 **Columns with filler material.** Ger. patent application I 74701 IVb/12o, dated Mar 27, 1943. In German. 1.50

8716-8718 PB L 25613 **Process for producing carboxylic acids and carboxylic anhydrides.** Ger. patent application I 74732 IVd/12o, dated Mar 31, 1943. In German. 1.50

8719-8721 PB L 25613 **Process for producing mercaptans or thioethers.** Ger. patent application I 74703 IVd/12o, dated Mar 30, 1943. In German. 1.50
Illegible.

8722-8725 PB L 25613 **Process for producing carboxylic acids and anhydrides.** Ger. patent application I 74733 IVd/12o, dated Mar 31, 1943. In German. 1.50
Illegible.

8726-8727 PB L 25613 **Process for producing polyvalent alcohols.** Ger. patent application I 74734 IVd/12o, dated Mar 31, 1943. In German. 1.50

8728-8732 PB L 25613 **Working up products from the carbon monoxide-hydrogen reaction.** Ger. patent application I 73842 IVd/12o, dated Oct 10, 1942. In German. 1.50

8733-8742 PB L 25613 **Production of oxygen-containing compounds particularly alcohols.** Ger. patent application I 73384 IVd/12o, dated Oct 16, 1942. In German. 1.50
Will reproduce poorly.

8743-8746 PB L 25613 **Process for manufacturing molded plastic articles of constant dimensions.** Ger. patent application I 73481 XII/39a, dated Oct 31, 1942. In German. 1.50
Illegible.

8747-8751 PB L 25613 **Process for producing aqueous dispersions or polyisobutylene.** Ger. patent application I 74052 IVc/39b, dated Jan 1, 1943. In German. 1.50

8752-8754 PB L 25613 **Process for producing aqueous dispersions of high-polymeric substances.** Ger. patent application I 74195 IVc/39b, dated Jan 30, 1943. In German. 1.50

8755-8757 PB L 25613 **Process for utilizing the unused heat drop in turbines by evaporation installations.** Ger. patent application C 58123 Ia/14h, dated Mar 26, 1943. In German. 1.50

8758-8760 PB L 25613 **Process for concentrating solutions in connection with steam boilers.** Ger. patent application C 58032 IVa/12a, dated Feb 12, 1943. In German. 1.50

8761-8762 PB L 25613 **Process for straightening warped polyamide or polyurethane ribbons.** Ger. patent application I 74716 IVc/39b, dated Apr 1, 1943. In German. 1.50

8763-8767 PB L 25613 **Process for producing resins.** Ger. patent application I 74717 IVc/39c, dated Apr 2, 1943. In German. 1.50

8768-8771 PB L 25613 **Solvents and plasticisers for film-forming plastics.** Ger. patent application I 74551 IVc/39b, dated Apr 7, 1943. In German. 1.50

8772-8773 PB L 25613 **Process for producing alcoholic compounds.** Ger. patent application I 74762 IVd/12o, dated Apr 6, 1943. In German. 1.50

8774-8782 PB L 25613 **Process for producing resins.** Ger. patent application I 74752 IVc/39c, dated Apr 7, 1943. In German. 1.50

8783-8784 PB L 25613 **Process for producing 3-methylbutylamine.** Ger. patent application I 74753 IVc/12q, dated Apr 7, 1943. In German. 1.50

8785-8789 PB L 25613 **Process for evaporating solutions in multiple evaporators by using vapor compressors.** Ger. patent application I 74770 IVa/12a, dated Apr 8, 1943. In German. 1.50
May reproduce poorly.

8790-8792 PB L 25613 **Process for obtaining polyvalent phenols from crude phenol oils.** Ger. patent application I 74771 IVc/12q, dated Apr 9, 1943. In German. 1.50

8793-8796 PB L 25613 **Process for producing solutions of sulfur dioxide or hydrogen halids.** Ger. patent application I 74791 IVb/121, dated Apr 10, 1943. In German. 1.50

8797-8799 PB L 25613 **Process for manufacture of packings for keeping bakery products fresh.** Ger. patent application I 74792 XII/81a, dated Apr 12, 1943. In German. 1.50

3800-8805 PB L 25613 **Process for producing nitrogen salts of organic sulfonic acids.** Ger. patent application I 74793 IVd/12o, dated Apr 12, 1943. In German. 1.50

8806-8808 PB L 25613 **Process for producing organic substances containing oxygen.** Ger. patent application I 74808 IVc/12o, dated Apr 13, 1943. In German. 1.50

8809-8811 PB L 25613 **Process for plasticising synthetic rubber.** Ger. patent application I 74809 IVc/39b, dated Apr 13, 1943. In German. 1.50

8812-8813 PB L 25613 **Production of stable emulsions.** Ger. patent application I 74833 IVd/23e, dated Apr 15, 1943. In German. 1.50

8814-8818 PB L 25613 **Process for separating alcohols of higher molecular weight from mixtures with hydrocarbons.** Ger. patent application I 74834 IVd/12o, dated Apr 16, 1943. In German. 1.50
Will reproduce poorly.

8819-8821 PB L 25613 **Process for producing moisture resistant fibre fleeces and papers.** Ger. patent application I 74889 IVc/39b, dated Apr 28, 1943. In German. 1.50
Will reproduce poorly.

8822-8824 PB L 25613 **Process for producing moisture resistant fibre fleeces and papers.** Ger. patent application I 74890 IVc/39b, dated Apr 28, 1943. In German. 1.50

PB L 84114. REICHSPATENTAMT, BERLIN. German patents: Class 12d, groups 5, 17, 18, 19, 20, 21, and 22. Filters, filter presses and filtering. (FIAT Microfilm Reel BB 71, Frames 6215-7002) 1881-1941. 788 f. Price: Microfilm-$7.00 - Enlargement print-$80.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 242 patents in Class 12d, groups 5, 17, 18, 19, 20, 21, and 22: Filtering, including filters and filter presses. Filter presses in general, centrifugal filters, bag filters, filtering apparatus with tubular bodies, filtering apparatus with pan shaped bodies, filter funnels and supports, and filters for pipes, pumps, cocks, etc., are included. In German.

PB L 84114-S. REICHSPATENTAMT, BERLIN. German patents: Class 12d, groups 5, 17, 18, 19, 20, 21, and 22. Filters, filter presses and filtering. (FIAT Microfilm Reel BB 71, Frames 6215-7002, abstract cards) 1881-1941. 242 p. Price: Microfilm-$7.00 - Photostat-$25.00
These are abstract cards for the above FIAT microfilm reel, BB 71, PB L 84114, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 84142. REICHSPATENTAMT, BERLIN. German patents: Class 12e, group 1; and Class 12d, groups 22, 25, 26, 27, 28, 29, and 30. Filters and filtering. (FIAT Microfilm Reel BB 72, Frames 7003-8763) 1877-1941. 1761 f. Price: Microfilm-$7.00 - Enlargement print-$175.00
This microfilm reel, prepared by FIAT in Germany from the files of the German Patent Office, contains 413 patents of Class 12d, groups 22, 25, 26, 27, 28, 29, 30; and Class 12e, group 1: Clarifying, separating, filtering, and absorption and purification of gases and vapors. Filters for tubes and pumps, filter materials, cleaning apparatus for loose and solid filter materials are included. The patents are dated between 1877 and 1941. In German.

PB L 84142-S. REICHSPATENTAMT, BERLIN. German patents: Class 12e, group 1; and Class 12d, groups 22, 25, 26, 27, 28, 29, and 30. Filters and filtering. (FIAT Microfilm Reel BB 72, Frames 7003-8763, abstract cards) 1877-1941. 413 p. Price: Microfilm-$7.00 - Photostat-$42.00
These are abstract cards for the above FIAT microfilm reel, BB 72, PB L 84142, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 70269. REICHSPATENTAMT, BERLIN. German patents: Class 12f and 12g, Chemical apparatus and processes. (FIAT Microfilm Reel AA 79, Frames 8684-9691) 1879-1940. 1007 f. Price: Microfilm-$6.00 - Enlargement print-$101.00
This FIAT microfilm reel, prepared from the files of the German Patent Office, contains 340 individual patents, dated between 1879 and 1940, concerning chemical apparatus and processes. In German.

PB L 70269-S. REICHSPATENTAMT, BERLIN. German patents: Class 12f and 12g, Chemical apparatus and processes. (FIAT Microfilm Reel AA 79, Frames 8684-9691, abstract cards) 1879-1940. 340 p. Price: Microfilm-$7.00 - Photostat-$23.00
These are abstract cards for the above FIAT microfilm reel, AA 79, PB L 70269, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 70270. REICHSPATENTAMT, BERLIN. German patents: Class 12g and 12i; groups 1 and 4. Hydrogen and chlorine production and purification. (FIAT Microfilm Reel AA 81, Frames 1-1017) 1886-1942. 1017 f. Price: Microfilm-$6.00 - Enlargement print-$102.00
This FIAT reel, prepared from the files of the German Patent Office, consists of 339 patents covering the production of hydrogen and chlorine and catalysts for treating gases. In German.

PB L 70270-S. REICHSPATENTAMT, BERLIN. German patents: Class 12g and 12i; groups 1 and 4. Hydrogen and chlorine production and purification. (FIAT Microfilm Reel AA 81, Frames 1-1017, abstract cards) 1886-1942. 339 p. Price: Microfilm-$7.00 - Photostat-$23.00
These are abstract cards for the above FIAT microfilm reel, AA 81, PB L 70270, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 84156. REICHSPATENTAMT, BERLIN. German patents: Class 12i, groups 36 and 39; Class 12k, groups 1, 2, and 5. Metalloids and compounds, and ammonia processes. (FIAT Microfilm Reel CC 95, Frames 9166-9999A and 1-161) 1881-1940. 995 f. Price: Microfilm-$7.00 - Enlargement print-$101.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 391 patents in Class 12i, groups 36 and 39, and Class 12k, groups 1, 2, and 5, metalloids and their compounds, and ammonia respectively. Carbides, boron and its compounds, preparation of ammonia from organic substances, and separation of ammonia from liquids, gases and vapor are included. In German.

PB L 84156-S. REICHSPATENTAMT, BERLIN. German patents: Class 12i, groups 36 and 39; Class 12k, groups 1, 2, and 5. Metalloids and compounds, and ammonia processes. (FIAT Microfilm Reel CC 95, Frames 9166-9999A and 1-161, abstract cards) 1881-1940. 391 p. Price: Microfilm-$7.00 - Photostat-$40.00
These are abstract cards for the above FIAT microfilm reel, CC 95, PB L 84156, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 84167. REICHSPATENTAMT, BERLIN. German patents: Class 12o, groups 5 and 6. Alcohols, and derivatives of carbohydrates. (FIAT Microfilm Reel CC 101, Frames 4365-5359) 1893-1940. 995 f. Price: Microfilm-$7.00 - Enlargement print-$101.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 422 patents in Class 12o, groups 5 and 6, alcohols and carboxylic acids. Aliphatic compounds and synthetic derivatives of the carbohydrates, etc., are included. In German.

PB L 84167-S. REICHSPATENTAMT, BERLIN. German patents: Class 12o, groups 5 and 6. Alcohols, and derivatives of carbohydrates. (FIAT Microfilm Reel CC 101, Frames 4365-5359, abstract cards) 1893-1940. 422 p. Price: Microfilm-$7.00 - Photostat-$43.00
These are abstract cards for the above FIAT microfilm reel, CC 101, PB L 84167, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 70271. REICHSPATENTAMT, BERLIN. German patents: Class 12g, groups 4 and 5; Class 12i, groups 2, 3, and 5; Class 12h, groups 1, 3, and 4. Chemical processes: metalloids; and electrochemical processes. (FIAT Microfilm Reel AA 82, Frames 1018-2028) 1880-1942. 1010 f. Price: Microfilm-$6.00 - Enlargement print-$101.00

This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 373 patents in Class 12g, 12i, and 12h; groups 4 and 5; 2, 3 and 5; and 1, 3 and 4 respectively: Purely chemical processes in general; metalloids and their compounds; and general electro-chemical processes. Colloidal solutions, brines and gels; contact processes, substances, and carriers; hydrochloric acids miscellaneous; electrolytic processes; chlorine and hydrochloric acids; diaphragms and general electrolytic uses; and miscellaneous electro-chemistry are included. In German.

PB L 70271-S. REICHSPATENTAMT, BERLIN. German patents: Class 12g, groups 4 and 5; Class 12i, groups 2, 3, and 5; Class 12h, groups 1, 3, and 4. Chemical processes: metalloids; and electrochemical processes. (FIAT Microfilm Reel AA 82, Frames 1018-2028, abstract cards). 1880-1942. 373 p. Price: Microfilm-$6.00 - Photostat-$25.00

These are abstract cards for the above FIAT microfilm reel, AA 82, PB L 70271, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 84150. REICHSPATENTAMT, BERLIN. German patents: Class 12o, groups 10 and 16. Ketones and carboxylic acids. (FIAT Microfilm Reel AA 96, Frames 3174-4243) 1878-1940. 1069 f. Price: Microfilm-$7.00 - Enlargement print-$108.00

This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 542 patents in Class 12o, groups 10 and 16: Ketones, carboxylic acid and derivatives. Ketones and quinones, and ketocarboxylic acid amides are included. In German.

PB L 84150-S. REICHSPATENTAMT, BERLIN. German patents: Class 12o, groups 10 and 16. Ketones and carboxylic acids. (FIAT Microfilm Reel AA 96, Frames 3174-4243, abstract cards) 1878-1940. 542 p. Price: Microfilm-$7.00 - Photostat-$55.00

These are abstract cards for the above FIAT microfilm reel, AA 96, PB L 84150, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 84121. REICHSPATENTAMT, BERLIN. German patents: Class 12o, group 11. Carboxylic acids and derivatives. (FIAT Microfilm Reel AA 93, Frames 1-1062) 1895-1941. 1062 f. Price: Microfilm-$7.00 - Enlargement print-$108.00

This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 478 patents in Class 12o, group 11, Carboxylic acids and derivatives. Aliphatic carboxylic acids in general are included. In German.

PB L 84121-S. REICHSPATENTAMT, BERLIN. German patents: Class 12o, group 11. Carboxylic acids and derivatives. (FIAT Microfilm Reel AA 93, Frames 1-1062, abstract cards) 1895-1941. 478 p. Price: Microfilm-$7.00 - Photostat-$48.00

These are abstract cards for the above FIAT microfilm reel, AA 93, PB L 84121, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 70277. REICHSPATENTAMT, BERLIN. German patents: Class 12o, groups 17-19 and Class 12m, group 3. Carbamic acids and urethane, saccharin, and compounds with unsaturated chains. (FIAT Microfilm Reel AA 98, Frames 5233-6330) 1884-1939. 1198 f. Price: Microfilm-$6.00 - Enlargement print-$120.00

This reel, prepared by FIAT investigators in Germany, contains 470 patents. Class 12o, groups 17-19, includes urethane and urea, benzoic acid sulfimide and unsaturated hydrocarbon compounds. Only one patent of Class 12m, group 3, is included, which describes a process for the production of magnesium sulfate. In German.

PB L 70277-S. REICHSPATENTAMT, BERLIN. German patents: Class 12o, groups 17-19 and Class 12m, group 3. Carbamic acids and urethane, saccharin, and compounds with unsaturated chains. (FIAT Microfilm Reel AA 98, Frames 5233-6330, abstract cards) 1884-1939. 470 p. Price: Microfilm-$10.00 - Photostat-$32.00

Abstract cards of the individual items on the above reel, AA 98, PB L 70277, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 70279. REICHSPATENTAMT, BERLIN. German patents: Class 12q, groups 20, 22, 23, 24, 25, 26, 27, 28, and 29. Amines, phenols, naphthols, amino-phenols and amino-naphthols. (FIAT Microfilm Reel AA 102, Frames 9340-9999 and 1-326) 1879-1942. 986 f. Price: Microfilm-$6.00 - Enlargement print-$99.00

This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 450 patents in Class 12q, groups 20, 22, 23, 24, 25, 26, 27, 28, and 29, Phenols and naphthols and their derivatives. Phenol sulfonic acids, naphthol sulfonic acids, di- and polyhydroxynaphthalene sulfonic acids, and phenol carboxylic acids are included. In German.

PB L 70279-S. REICHSPATENTAMT, BERLIN. German patents: Class 12q, groups 20, 22, 23, 24, 25, 26, 27, 28, and 29. Amines, phenols, naphthols, amino-phenols and amino-naphthols. (FIAT Microfilm Reel AA 102, Frames 9340-9999 and 1-326, abstract cards) 1879-1942. 450 p. Price: Microfilm-$9.00 - Photostat-$30.00

These are abstract cards for the above FIAT microfilm reel, AA 102, PB L 70279, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

MACHINERY (EXCEPT ELECTRICAL)

PB L 84116. REICHSPATENTAMT, BERLIN. German patents: Class 8d, groups 5, 6, and 8. Laundering machinery. (FIAT Microfilm Reel BB 56, Frames 5694-6676) 1877-1942. 983 f. Price: Microfilm-$7.00 - Enlargement print-$100.00

This reel, prepared by FIAT investigators in Germany, contains 242 patents dated between 1877 and 1942. Class 8d, group 5, includes washing machines with rubbing devices. Only one patent of class 8d, group 6, is included which covers a cylinder washing machine and two patents of class 8d, group 8, concern stampers and pounders. In German.

PB L 84118-S. REICHSPATENTAMT, BERLIN. German patents: Class 8d, groups 5, 6, and 8. Laundering machinery. (FIAT Microfilm Reel BB 56, Frames 5694-6676, abstract cards) 1877-1942. 242 p. Price: Microfilm-$7.00- Photostat-$25.00
Abstract cards of the individual items on the above reel, BB 56, PB L 84118, prepared by FIAT personnel in Germany. Each card gives the German title with English translation, patent number, classification, date, patentee and/or inventor.

PB L 84115. REICHSPATENTAMT, BERLIN. German patents: Class 8e, group 3. Vacuum cleaners. (FIAT Microfilm Reel CC 69, Frames 4063-4807) 1893-1930. 745 f. Price: Microfilm-$7.00 - Enlargement print-$76.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 179 patents in Class 8e, group 3, vacuum cleaners. The patents are dated between 1893 and 1930. In German.

PB L 84115-S. REICHSPATENTAMT, BERLIN. German patents: Class 8e, group 3. Vacuum cleaners. (FIAT Microfilm Reel CC 69, Frames 4063-4807, abstract cards) 1893-1930. 179 p. Price: Microfilm-$5.25 - Photostat-$18.00
These are abstract cards for the above FIAT microfilm reel, CC 69, PB L 84115, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

METALS AND METAL PRODUCTS

PB L 84164. REICHSPATENTAMT, BERLIN. German patents: Class 12 i, groups 4 and 5; class 12m, group 8 and class 12n, groups 2-7. Alkali metals, earth metals and heavy metals. (FIAT Microfilm Reel BB 78, Frames 4204-5255) 1882-1941. 1052 f. Price: Microfilm-$7.00 - Enlargement print-$107.00
This reel, prepared by FIAT investigators in Germany, contains 467 patents, dated between 1882 and 1941. Class 12 i, groups 4 and 5, includes treatment of mixed natural saline deposits and alkali sulfates, class 12m, group 8, chromium compounds and class 12n, groups 2-7, covers compounds of iron, manganese, rhenium, nickel, cobalt, copper, zinc, cadmium and lead. The entire reel may be purchased as a microfilm for $7.00. In German.

PB L 84164-S. REICHSPATENTAMT, BERLIN. German patents: Class 12 i, groups 4 and 5; class 12m, group 8 and class 12n, groups 2-7. Alkali metals, earth metals and heavy metals. (FIAT Microfilm Reel BB 78, Frames 4204-5255, abstract cards) 1882-1941. 467 p. Price: Microfilm-$7.00 - Photostat-$47.00
Abstract cards of the individual items on the above reel, BB 78, PB L 84164, prepared by FIAT personnel in Germany. Each abstract card gives the German title with English translation, patent number, classification, date, patentee and/or inventor.

TEXTILES AND TEXTILE PRODUCTS

PB L 84140. REICHSPATENTAMT, BERLIN. German patents: Class 8a, group 9. Bleaching, washing and dyeing equipment. (FIAT Microfilm Reel AA 56, Frames 2315-3129) 1879-1943. 816 f. Price: Microfilm-$7.00 - Enlargement print-$83.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 179 patents in Class 8a, group 9, devices for passing fibrous material through bleaching, washing, and dyeing fluids. In German.

PB L 84140-S. REICHSPATENTAMT, BERLIN. German patents: Class 8a, group 9. Bleaching, washing and dyeing equipment. (FIAT Microfilm Reel AA 56, Frames 2315-3129, abstract cards) 1879-1943. 179 p. Price: Microfilm-$5.25 - Photostat-$18.00
These are abstract cards for the above FIAT microfilm reel, AA 56, PB L 84140, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor. A brief abstract is also included.

PB L 84149. REICHSPATENTAMT, BERLIN. German patents: Class 8a, groups 17 and 18. Bleaching, washing and dyeing. (FIAT Microfilm Reel AA 59, Frames 4853-5661) 1881-1936. 809 f. Price: Microfilm-$7.00 - Enlargement print-$82.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 184 patents in Class 8a, groups 17 and 18, Application of bleaching, washing or dyeing fluid through fibrous materials. Application in open and closed vats is included. In German.

PB L 84149-S. REICHSPATENTAMT, BERLIN. German patents: Class 8a, groups 17 and 18. Bleaching, washing and dyeing. (FIAT Microfilm Reel AA 59, Frames 4853-5661, abstract cards) 1881-1936. 184 p. Price: Microfilm-$5.50 - Photostat-$19.00
These are abstract cards for the above FIAT microfilm reel, AA 59, PB L 84149, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 84126. REICHSPATENTAMT, BERLIN. German patents: Class 8b, group 12; Class 8c, groups 6-7; and Class 8d, groups 3, 4 and 5. Textile processing and machinery. (FIAT Microfilm Reel BB 55, Frames 4701-5693) 1877-1941. 993 f. Price: Microfilm-$7.00 - Enlargement print-$101.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 227 patents in Class 8b, 8c, and 8d, groups 32, 6-7, and 3-4-5 respectively, finishing and ornamenting yarn, textile webs, knit goods; printing of yarn, woven fabrics, etc.; washing cloths. Shearing of lace and embroidery; cylinder printing machines for yarn and textile breadths, washing machines with brushes, rollers, and rubbers are included. The patents are dated between 1877 and 1941. In German.

PB L 84126-S. REICHSPATENTAMT, BERLIN. German patents: Class 8b, group 12; Class 8c, groups 6-7; and Class 8d, groups 3, 4 and 5. Textile processing and machinery. (FIAT Microfilm Reel BB 55, Frames 4701-5693, abstract cards) 1877-1941. 227 p. Price: Microfilm-$6.50 - Photostat-$23.00
These are abstract cards for the above FIAT microfilm reel, BB 55, PB L 84126, prepared by FIAT personnel in Germany. Each abstract card gives the German translation with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 70327. REICHSPATENTAMT, BERLIN. German patents: Class 12q, group 6; Class 29a, groups 3 and 6. Amines and mechanical preparation of textile fibers. (FIAT Microfilm Reel BB 91, Frames 1112-2098) 1888-1941. 986 f. Price: Microfilm-$6.00 - Enlargement print-$99.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 314 patents in Class 12q and 29a, group 6 and groups 3 and 6, respectively, amines and mechanical preparation of textile fibers. Amino acids, hackling machines and production of rayon are included. In German.

PB L 70327-S. REICHSPATENTAMT, BERLIN. German patents: Class 12a, group 6; Class 29a, groups 1 and 6. Amines and mechanical preparation of textile fibers. (FIAT Microfilm Reel BB 91, Frames 1112-2098, abstract cards) 1888-1941. 314 p. Price: Microfilm-$7.00 - Photostat-$21.00
These are abstract cards for the above FIAT microfilm reel, BB 91, PB L 70327, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

PB L 84155. REICHSPATENTAMT, BERLIN. German patents: Class 29a, groups 4-7, Mechanical preparation of textile fibers. (FIAT Microfilm Reel BB 98, Frames 3816-4831) 1878-1942. 1016 f. Price: Microfilm-$7.00 - Enlargement print-$103.00
This microfilm reel, prepared from the files of the German Patent Office by FIAT personnel in Germany, contains 324 patents in Class 29a, groups 4, 5, 6, and 7, mechanical preparation of textile fibers. Extractions of peat fibers, apparatus for setting and drying flax, production and after treatment of rayon, and miscellaneous devices for mechanical liberation of textile fibers are included. In German.

PB L 84155-S. REICHSPATENTAMT, BERLIN. German patents: Class 29a, groups 4-7, Mechanical preparation of textile fibers. (FIAT Microfilm Reel BB 98, Frames 3816-4831, abstract cards) 1878-1942. 324 p. Price: Microfilm-$7.00 - Photostat-$33.00
These are abstract cards for the above FIAT microfilm reel, BB 98, PB L 84155, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, patent number, classification, date, patentee and/or inventor.

MISCELLANEOUS

PB L 70414. I. G. FARBENINDUSTRIE A. G., BOBINGEN/BAYERN, GERMANY. German design patents in various fields. (FIAT Microfilm Reel E 11, Frames 1-576) 1938-1943. 576 f. Price: Microfilm-$6.00 - Enlargement print-$58.00
This microfilm reel, prepared by FIAT investigators in Germany, consists of a miscellaneous group of 163 design patents dated between 1938 and 1943. In German.

PB L 70414-S. I. G. FARBENINDUSTRIE A. G., BOBINGEN/BAYERN, GERMANY. German design patents in various fields. (FIAT Microfilm Reel E 11, Frames 1-576, abstract cards) 1938-1943. 163 p. Price: Microfilm-$4.00 - Photostat-$11.00
These are abstract cards for the above FIAT microfilm reel, E 11, PB L 70414, prepared by FIAT personnel in Germany. Each abstract card gives the German title with an English translation, design patent number and/or classification, date, patentee and/or assignor.

PB L 84131. REICHSPATENTAMT, BERLIN. German patents: Class 12a, group 37; Class 12r, groups 1, 2, 3; Class 12s; Class 76b, group 26. Anthracene and derivatives; wood, tar and coal distillation products; and textile machinery. (FIAT Microfilm Reel CC 109, Frames 2054-3092) 1877-1941. 1039 f. Price: Microfilm-$7.00 - Enlargement print-$105.00
This reel, prepared by FIAT investigators in Germany, contains 364 patents dated between 1877 and 1941. Class 12a, group 37, includes anthracene and derivatives, class 12r, groups 1, 2, 3, the distillation of tars, and wood for acetic acid, the pressure extraction from coal as well as the preparation of dispersions, emulsions and suspensions. Class 76b, group 26 covers gill box drawing for wool and cotton. In German.

PB L 84131-S. REICHSPATENTAMT, BERLIN. German patents: Class 12a, group 37; Class 12r, groups 1, 2, 3; Class 12s; Class 76b, group 26. Anthracene and derivatives; wood, tar and coal distillation products; and textile machinery. (FIAT Microfilm Reel CC 109, Frames 2054-3092, abstract cards) 1877-1941. 364 p. Price: Microfilm-$7.00 - Photostat-$37.00
Abstract cards of the individual items on the above reel, CC 109, PB L 84131, prepared by FIAT personnel in Germany. Each card gives the German title with English translation, patent number, classification, date, patentee and/or inventor.

PB L 70143. REICHSPATENTAMT, BERLIN. Patent specifications on all fields. (FIAT Microfilm Reel J 3, Frames 1-1035) 1930-1942. 1034 f. Price: Microfilm-$6.00 - Enlargement print-$103.50
This FIAT microfilm reel contains the specifications of 352 German patents in all fields, in chronological order. (Patent 747336 to 747775 with 88 missing.) These patents were issued in September-October 1944. Since the frame numbers in one part of the reel are not in numerical order and in two other parts of the reel repeat themselves, it is not possible to identify individual patents by frame numbers. Therefore, only the entire reel may be ordered either as a microfilm or enlargement prints. In German.

TECHNICAL ORDERS

MISCELLANEOUS

PB L 81267. U. S. ARMY AIR FORCES. AAF Kardex stock record control system. (Tech Order 25-1-7). Apr 1947. 10 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 42017-R. U. S. ARMY AIR FORCES. Administrative publications - AAF form 2630, aircraft checker's report. (Supersedes PB 42017) (Tech Order 00-35D-2630, rev.) May 1947. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 81795. U. S. ARMY AIR FORCES. Decalcomania fabrication by silk screen process. (Tech Order 07-1-17). Jun 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 39693-S. U. S. ARMY AIR FORCES. Distribution of technical publications and confidential orders. (Supplement to PB 39693). (Tech Order 00-5-2A). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 43626-R. U. S. ARMY AIR FORCES. General - Painting Army Air Forces drums. (Supersedes PB 43626) (Tech Order 08-1-3, rev.) Jul 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 43646-R. U. S. ARMY AIR FORCES. Glue - Mixing and spread. (Supersedes PB 43646) (Tech Order 07-25-1, rev.) Jul 1947. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 62544-R. U. S. ARMY AIR FORCES. Overhaul instructions for carbon dioxide fixed installation aircraft fire extinguisher (Kidde). (Partial revision of PB 62544) (Tech Order AN 03-45CA-2, rev.) Mar 1947. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 62534-R. U. S. ARMY AIR FORCES. Parts catalog for carbon dioxide fixed installation aircraft fire extinguisher (Kidde). (Partial revision of PB 62534) (Tech Order AN 03-45CA-3, rev.) Apr 1947. 10 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80957. U. S. ARMY AIR FORCES. Set - Clothing and equipment laboratory. (Tech Order 00-30-1018). Feb 1947. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 81212. U. S. ARMY AIR FORCES. Set-computing and designing. (Tech Order 00-30-728). Feb 1947. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00.

PB L 80539. U. S. ARMY AIR FORCES. Set - Development and experimental, accessories, power plant, aircraft. (Tech Order 00-30-896). Feb 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 81010. U. S. ARMY AIR FORCES. Set - Development and experimental, carbon-dioxide and oxygen equipment, aero-medical. (Tech Order 00-30-710). Feb 1947. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80490. U. S. ARMY AIR FORCES. Set - Development and experimental, clothing. (Tech Order 00-30-886). Feb 1947. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80507. U. S. ARMY AIR FORCES. Set - Development and experimental, engine instruments, equipment laboratory. (Tech Order 00-30-903). Feb 1947. 9 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80541. U. S. ARMY AIR FORCES. Set - Development and experimental, equipment, carburetor and fuel injection, power plant, aircraft. (Tech Order 00-30-580). Feb 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80536. U. S. ARMY AIR FORCES. Set - Development and experimental, equipment, liquified gas generating and handling, aero-medical. (Tech Order 00-30-701). Feb 1947. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80482. U. S. ARMY AIR FORCES. Set - Development and experimental, instrument, computer and optical, equipment laboratory. (Tech Order 00-30-902). Feb 1947. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80484. U. S. ARMY AIR FORCES. Set - Development and experimental, instrument, flight, equipment laboratory. (Tech Order 00-30-896). Feb 1947. 9 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80494. U. S. ARMY AIR FORCES. Set - Development and experimental, instrument, fuel, equipment laboratory. (Tech Order 00-30-892). Feb 1947. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80506. U. S. ARMY AIR FORCES. Set - Development and experimental, instrument, gyro, equipment laboratory. (Tech Order 00-30-909). Feb 1947. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80993. U. S. ARMY AIR FORCES. Set - Development and experimental, instrument, power plant, aircraft. (Tech Order 00-30-896). Feb 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80990. U. S. ARMY AIR FORCES. Set - Development and experimental, navigation instruments, equipment laboratory. (Tech Order 00-30-705). Feb 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80951. U. S. ARMY AIR FORCES. Set - Development and experimental, photo electronic equipment, photographic laboratory. (Tech Order 00-30-1071). Feb 1947. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 81003. U. S. ARMY AIR FORCES. Set - Development and experimental, power plant, accessory, equipment laboratory. (Tech Order 00-30-711). Feb 1947. 11 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 80937. U. S. ARMY AIR FORCES. Set - Development and experimental, system, ignition, aircraft engine. (Tech Order 00-30-581). Feb 1947. 4 p. Price: Microfilm $1.00 - Photostat-$1.00

PB L 81215. U. S. ARMY AIR FORCES. Set-development and test, equipment and accessories, test flight, structural aircraft laboratory. (Tech Order 00-30-700). Feb 1947. 22 p. Price: Microfilm-$1.50 - Photostat-$3.00.

PB L 80545. U. S. ARMY AIR FORCES. Set - Development, receiver, indicator, power supply, ground communications. (Tech Order 00-30-940). Feb 1947. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00

REGISTER OF PATENTS AVAILABLE FOR LICENSING OR SALE

Information on the following patents can be obtained from the U. S. Patent Office, Washington 25, D. C.

The "Groups" appearing after the patent abstracts are based on the Standard Industrial Classification Manual, President, Bureau of the Budget.

Official Gazette, February 17, 1948

The Hoover Company, 2300 Willoughby Tower, 8 South Michigan Ave., Chicago 3, Ill., has placed the following twenty-one patents on the Register of Patents as available for licensing. The patents relate to ice-making equipment for domestic refrigerators. Groups 34—41; 35—69—84.

PAT. 1,993,614. Ice tray. Patented Nov 7, 1933. An ice tray with means for releasing the tray from the evaporator shelf of a refrigerator in the form of a plunger which can be grasped simultaneously with the tray handle to press a shoe downwardly against the evaporator shelf and raise the tray. Reg. No. 9,123.

PAT. 1,933,615. Ice tray. Patented Nov 7, 1933. An ice tray having a thermostatic bottom which operates to release the tray from the evaporator shelf after the water in the tray is frozen. Reg. No. 9,124.

PAT. 2,181,114. Ice tray. Patented Nov 28, 1939. An ice tray having expansible steel pockets with mechanical means for expanding the pockets sequentially from the ends of the tray toward its center whereby one or more ice cubes may be released as desired. Reg. No. 9,125.

PAT. 2,181,580. Ice tray. Patented Nov 28, 1939. An ice tray having a sealed chamber in its bottom containing a brine or other freezable fluid which freezes at a temperature below 32° F. and expands to break the ice cubes loose from the tray walls. Reg. No. 9,126.

PAT. 2,181,582. Ice tray. Patented Nov 28, 1939. An ice tray having an indicator operative to indicate when the ice is frozen and also to indicate whether or not the tray is filled or empty. Reg. No. 9,127.

PAT. 2,181,584. Ice maker. Patented Nov 28, 1939. A clear-ice maker in the form of an ice tray for a domestic refrigerator having air ducts whereby air may be blown through the water while it is freezing to form clear ice. In one modification a small pump is arranged in the air flue at the rear of the cabinet with a tube leading to the ducts in the tray. In another modification vibration of the compressor pumps air through the tray ducts. Reg. No. 9,128.

PAT. 2,181,590. Ice maker. Patented Nov 28, 1939. A clear-ice maker for a domestic refrigerator in the form of a grid to be placed in an ordinary ice tray. The grid has air ducts whereby air may be blown through the water while it is freezing to form clear ice. Reg. No. 9,129.

PAT. 2,181,591. Ice tray. Patented Nov 28, 1939. An ice tray having a sealed chamber beneath the ice compartments. In one modification a plurality of wedges are moved sequentially to release one or more cubes as desired. In a second modification a plurality of different sized pistons sequentially eject cubes by the application of hydraulic pressure thereto. Reg. No. 9,130.

PAT. 2,181,593. Ice tray. Patented Nov 28, 1939. An ice tray with a flexible partition between the bottom and the ice compartments charged with a non-freezing fluid with a hand pump to increase the pressure of the fluid so as to eject the ice cubes. Reg. No. 9,131.

PAT. 2,243,848. Ice tray. Patented Jun 3, 1941. A removable grid for an ice tray having a rubber partition with cube lifters embedded therein. To remove cubes it is only necessary to grasp two extensions and move them toward each other to remove two cubes. The remainder of the cubes may be removed in like manner. Reg. No. 9,132.

PAT. 2,247,903. Ice maker. Patented Jul 1, 1941. A clear-ice maker for a domestic refrigerator in the form of a resiliently mounted evaporator shelf. In one form a small vibrator vibrates the shelf while the water is freezing to form clear ice. In another form the vibration of the compressor vibrates the shelf. Reg. No. 9,133.

PAT. 2,247,904. Ice maker. Patented Jul 1, 1941. A clear-ice maker for a domestic refrigerator in which the entire evaporator is suspended from a resiliently mounted motor-compressor unit so as to vibrate the water while it is freezing to form clear ice. Reg. No. 9,134.

PAT. 2,264,849. Ice tray. Patented Dec 2, 1941. A flexible grid for an ice tray with a handle at each end. The grid is removed from the tray by raising the handles and ice is removed from the grid by twisting it, using the handles as levers. Reg. No. 9,135.

PAT. 2,271,556. Ice tray. Patented Feb 3, 1942. A grid for an ice tray in which the grids are attached to a flexible cover. The grid is removed from the tray by raising a pair of handles and the ice is removed from the grid by a continued movement of the handles. Two or more cubes may be removed as desired. Reg. No. 9,136.

PAT. 2,278,221. Ice tray. Patented Mar 31, 1942. An ice tray and grid assembly in which the tray is removed from the evaporator shelf, the grid is removed from the tray and the ice is removed from the grid by upward movement of a single operating lever. Reg. No. 9,137.

PAT. 2,278,229. Ice tray. Patented Mar 31, 1942. An arrangement by which ice trays may be removed from the evaporator of a refrigerator and ice cubes ejected from the tray by a hand or foot operated lever outside of the refrigerator cabinet or by the opening of the cabinet door. Reg. No. 9,138.

PAT. 2,297,371. Ice maker. Patented Sep 29, 1942. A continuous ice maker for domestic refrigerators in the form of an endless belt having ice pockets is moved through a water tank to pick up water, through a freezing chamber where the water is frozen, and back to the water tank where the ice melts loose and floats to the surface of the water in the tank. A cooled storage space for food is also provided. Reg. No. 9,139.

PAT. 2,320,534. Ice tray. Patented Jun 1, 1943. An ice tray wherein the grid is removed from the tray by raising a lever upwardly and the ice is separated from the grid by moving the same lever at right angles to the first movement. Reg. No. 9,140.

PAT. 2,320,542. Ice tray. Patented Jun 1, 1943. An ice tray in which individual ice cubes are raised upwardly in the tray by rotating a separable bar which acts to raise the cross grids upwardly in succession. Reg. No. 9,141.

PAT. 2,389,317. Ice tray. Patented May 20, 1945. An ice tray in which cells or pockets are provided to re-

ceive water to be frozen. The bottoms of the cells are flexible with sealed spaces below the bottoms containing a volatile fluid which condenses at temperatures below 32° F. and evaporates at temperatures above 32° F. When the tray is removed from the refrigerator the fluid vaporizes and expands, and the rise in vapor pressure loosens and forces the ice cubes upwardly in the pockets. The device can be made to operate in less than a minute after the removal of the tray from the refrigerator. Reg. No. 9,142.

PAT. 2,410,292. Ice tray. Patented Oct 29, 1946.
An ice tray in which the grid is removed from the tray by raising a lever upwardly to rotate a shaft and continued movement of the lever releases pairs of cubes in succession. Reg. No. 9,143.

PAT. 2,429,873. Safety window lock. Patented Oct 28, 1947.
This window lock is designed to be mounted on conventional lower or upper window sash. A casing has a flat base on which a long and short flange are bent to form locking lips which engage recesses in the side walls of a top cover plate. The plate is open at front and back ends. Operating parts are mounted on the base and include a rotatable arcuate locking foot, the serrated edge of which engages the stop strip of a lower window sash. An upstanding lug on the foot is engaged by a spring having a straight portion which passes through a slot in an upstanding flange on the plate to engage a rivet on which a cam lever is rotatably mounted. The cam bears against the plate to move the foot into and out of engagement with the stop strip. In operation, the foot is normally returned to inoperative position by the spring, but is cammed to a locking position by the lever. A similar lock is employed on the upper sash, but is countersunk in the sash rail, the foot engaging the adjoining window frame instead of the stop strip. (Owner) Elmer B. Evans, 1319 Shatto St., Los Angeles 14, Calif. Group 33--59. Reg. No. 9,144.

PAT. 2,428,057. Electrical terminal block. Patented Sep 30, 1947. (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757.)
Terminal block facilitates connecting and disconnecting many temporary electrical connections involved when testing electrical equipment. It comprises a rectangular block of insulating material having a series of transverse channels in its top surface and rocking keys (similar to piano keys) of insulating material pivotally mounted in the channels. Near one side of the block, contact studs for lead wires protrude upwardly into the channels, and contact posts for power input wires project below the bottom of the block. These studs and posts constitute the upper and lower ends of individual conductor rods which extend through the block. When a selected key is depressed, it uncovers a stud to permit a closed lug of a lead wire to be slipped over the stud. When released, a spring closes the key, with a recess in the key embracing the stud to maintain lug coupled to stud. Keys also shield studs and lugs. (Owner) Excel S. Wilburn. Address correspondence to O'Hara, Randall, Castagnette & Kilpatrick, 525 Capitol St., Vallejo, Calif. Group 36--11. Reg. No. 9,145.

PAT. 2,430,536. Welding electrode holder. Patented Nov 11, 1947.
This holder provides relatively large contact area between its conductor bar and an electrode; permits access to interior parts; easy attachment or detachment of a power cable; and prevents arcing, should holder accidentally contact metal surfaces. A hollow two-part cylindrical casing of insulating material encloses a conductor bar (of reduced diameter at its forward end) and a rear cable block which are threadedly connected. The front casing section, which surrounds and carries an elongated metallic sleeve, has its rear end telescoped into the rear casing section (which constitutes a handle) for limited sliding movement therein. The front casing section, the sleeve, and the conductor bar are provided with transversely inclined openings which are adapted to register when the front casing section is slid rearwardly to permit insertion of an electrode. A spring normally urges the front casing section forwardly to firmly hold electrode in holder. (Owner) Kenneth L. Smith, c/o Kwik Way Garage, Highway 69, Eufaula, Okla. Group 36--19. Reg. No. 9, 146.

PAT. 2,430,512. Cleaning device for chimneys or the like. Patented Nov 11, 1947.
This cleaning device is made up of a number of rods having a collar extension and connected in pairs by a universal joint, the tops being threaded to receive a brush or other suitable cleaning instrument. The rods are retained in a coaxial position, when extended, by a flanged sleeve provided on the rods, the sleeve being supported on the shoulder of the collar extension. The device may be adapted to chimneys of any length and used by a single worker without the aid of ladders. A carrying case, similar to a valise, is provided for transporting the rods in collapsed position. (Owner) Frank H. Johnson, Jr. Address correspondence to Ernest O. Montague, 500 Fifth Ave., New York 18, N. Y. Group 39--72. Reg. No. 9,147.

PAT. 2,430,501. Coffee service apparatus. Patented Nov 11, 1947.
A coffee dispenser for restaurants, canteens, and other public eating places. A water heater (fired in any desired manner) and coffee urns are hidden from the service room by a partition to allow less expensive urns and better insulation. A long coffee-dispensing tube leading from the urns has a number of discharge faucets spaced along a serivce counter, with drain trough beneath. Hot water circulates through a water jacket surrounding each urn and around the coffee supply line to keep coffee hot at all times. One or more faucets may be attached to the jacket to supply hot water for making tea, etc. The supply line is constructed in a series of independent sections so fitted that they are easily disassembled, and hot water may be circulated through the entire coffee system, for cleaning. (Owner) D. B. Galbally, 222 East 82d St., New York, N. Y. Group 35--51. Reg. No. 9,148.

Government Owned Application

APPLICATION SERIAL NO. 753,791. Electrical micrometer.
A device and method for measuring micrometric thicknesses of various materials, preferably electrically non-conductive, from one side thereof thereby eliminating the necessity for either an electrical or physical connection to the other side of the media to be measured. The device comprises a coil for generating a radio frequency electromagnetic field which is caused to traverse the media to be measured and impinge on a non-magnetic electrically conducting surface at one side of the media. A direct reading instrument is arranged to indicate the resultant of the primary inducing field and the field induced in the conducting surface as measured at the opposite side of the media, it having been found that such resultant varies linearly with distance after certain compensating adjustments have been made. (Terms and conditions of licenses may be obtained from Assistant Chief of Naval Research for Patents, Navy Department, Washington 25, D. C.) Groups 35--43; 36--13; 39--11. Reg. No. 9149.

Official Gazette, February 24, 1948

PAT. 2,430,684. Portable welding gun. Patented Nov 11, 1947.
Chuck, which may be detachably connected to conventional

portable welding guns, insures effective electrical contact with heads of fastener pins while held in the chuck so as to avoid arcing between the pin head and chuck. The jaws of the chuck may be adjusted to receive pin heads of various diameters. The chuck has a tubular metallic shank which is adapted to be threaded onto the couter end of the usual plunger of a welding gun. A hollow body of insulating material having a reduced neck threaded on the outer end of the shank is split longitudinally inwardly to provide a circular series of forwardly diverging resilient jaws. The inner sides of the ends of the jaws are provided with undercut notches for receiving the pin head which is snapped into the jaws. The jaws yield sufficiently to permit their disengagement from pin head after pin is welded to a metal plate. A relatively large metallic contact head within the jaws is yieldingly urged by a light helical spring into effective engagement with pin head. A flexible rod conducts welding current from plunger to contact head. (Owner) Andrew J. Palese, 813 West 8th St., Wilmington, Del. Group 36--19. Reg. No. 9,150.

PAT. 2,431,290. Control gearing and lever. Patented Nov 18, 1947.
This patent describes gearing by means of which multiple functions are performed by the operation of a single control. The gearing may be adapted to a wide variety of apparatus such as that used for dispensing electricity, gas, or liquids; in connection with telescopes, periscopes, and other optical arrangements; trip (color) control, etc. For example, the device may be used to control a water faucet so that by manipulation of a single control joint flow of hot and cold water, or the separate flow of either hot or cold water, may be accomplished. Several modifications are fully described. (Owner) Emilie M. Wildermann. Address correspondence to Francis J. Mangravite, 280 Broadway, New York 7, N. Y. Groups 36--41; 39--11. Reg. No. 9,151.

PAT. 2,098,549. Emergency alarm and motor starting system. Patented Nov 9, 1937.
This fire alarm system may be set so that engines of vehicles at all stations may be automatically and simultaneously started and station doors opened in response to alarms turned in at conventional neighborhood call boxes. Power for these operations is derived from sources separate from the batteries of the vehicles. The system may be controlled and operated independently of the call boxes by an operator at a central fire station. This is important when telephone alarms are received at the central station. The operator may selectively signal one or more of the companies independently of the others, or simultaneously signal all companies. To signal a selected company the operator selects and opens one of a plurality of branch line switches to start engines, open doors, and sound a gong at the station. Intermitteat opening and closing of the switch by operator continues to actuate the gong to indicate scene of fire. To signal all companies and perform the above operations the operator manipulates a master switch in the main alarm circuit in the same way. If desired, the operator may throw a main switch in the main alarm circuit to prevent call box alarms from going further than the central fire station. (Owner) George E. Lake. Address correspondence to Robb & Robb, Woodward Bldg., Washington 5, D. C. Group 36--62. Reg. No. 9,152.

PAT. 2,429,057. Drill grinder. Patented Oct 14, 1947.
Without requiring special skill, twist drills inserted into the holder of this device are ground automatically so that the sides attain correct angle and clearance depth. An adjustable grinding wheel is mounted on a vertical standard so that the wheel rotates perpendicular to the standard. The standard has an offset arm which slants away from the wheel. Pivoted at the upper end of the arm is a drill holder which includes a drill-holding chuck, a shaft having its lower end fixed to the chuck, and a sleeve in which the upper portion of the shaft is slidably and rotatably journalled, enabling the chuck to be swung toward and away from the grinding surface of the wheel. A cam and followers on the sleeve and shaft automatically move the chuck away from the grinding surface as the shaft is rotated. A stop associated with the arm cooperates with the pivoting means on the upper part of the shaft and limits the swing of the holder toward the grinding surface, rotation of the shaft being limited in one direction only by a stop on the cam. (Owner) R. B. Hanford, 223 N. Ingraham Ave., Lakeland, Fla. Group 35--41. Reg. No. 9,153.

PAT. 2,429,559. Tube cutting apparatus. Patented Oct 21, 1947.
This machine will cut short tubes or collars along straight or irregular lines. The wheels of a torch carriage frictionally engage and rotate a drum which in turn rotates an operating shaft. One end of the shaft carries mechanism for supporting the tube (or collar) to be cut. A block on the other end of the shaft carries a pair of radially extending parallel shafts having conical shaped pattern rollers on their outer ends. Upon rotation of the operating shaft the pattern rollers engage a pattern and move the operating shaft axially in accordance with the configuration of the pattern, thereby causing the torch to cut the tube along any predetermined path. Tube-supporting mechanism includes spring means so that when a latch is released the spring will throw the cut tube clear of the machine into any suitable receptacle. In event that tubes or collars other than cylindrical are to be cut, drums of the same shape must be employed. (Owner) Rudolph M. Matson, 337 North Finn St., St. Paul 4, Minn. Group 35--42. Reg. No. 9,154.

PAT. 2,199,532. Shunt wire fastener. Patented May 7, 1940.
A fastener for firmly connecting shunt wires with carbon brushes, preventing short circuits due to loose connections and avoiding the damage resulting from arcing. A tapered socket is bored in brush or formed during molding, the walls threaded to accommodate the convulutions of a tapered helical spring of conductive material which forms a terminal for the shunt wire. The shunt wire is formed of twisted strands and is tapered at the end so it may extend into the terminal for substantially the full length thereof. The tapered helical spring tightly gripe the twisted-wire conductor and the connection may be soldered. After the spring has been applied to the conductor, it may be screwed into the socket where the conductor will be firmly held by engagement of the convolutions of the spring in the threads of the socket. The terminal is easily inserted or removed by a few turns in the socket. (Owner) Mrs. Kathryn A. Thayer, 1227 East 113 St., Cleveland 8, Ohio. Groups 19--41; 36--11. Reg. No. 9,155.

PAT. 2,427,521. Steam electric sadiron. Patented Sep 16, 1947.
An electric iron of conventional shape except for V-shaped steam-distributing grooves on under side of base and water reservoir on rear of base. The reservoir extends into body portion, forming part of handle and providing a stand for iron when not in use. A steam-generating and conducting tube, mounted in body adjacent a thermostatically controlled electric heating element, communicates with the reservoir and with grooves in lower face of base. The flow of water is automatically regulated by a valve, which is set according to the kind of clothes to be ironed, and steam pressure is equalized by an equalization conductor portion. (Owner) Louis B. Butman, Merkel, Tex. Group 36--21. Reg. No. 9,156.

PAT. 2,405,720. Slide rule. Patented Aug 13, 1946.
This slide rule is formed with a concavely curved face and a compound magnifying lens built into and forming part of the runner. The lens has a lower convexly curved cylindrical surface conforming substantially to the concave curva-

ture of the rule and an upper convexly curved cylindrical surface which is formed on an axis substantially at right angles to the axis of the lower curved surface of the lens. The lens is mounted so that its lower curved surface is maintained out of contact and in spaced relation with the curved face of the rule. A modification shows the lens incorporated in a double faced slide rule. (Owner) Albert L. Snedaker, 2013 Bryn Mawr Ave., Haddon Heights, N. J. Groups 33--52; 35--65. Reg. No. 9,157.

PAT. 2,428,026. Wire staple former and stapling apparatus. Patented Sep 30, 1947.
Power-driven machine will flatten a continuous piece of wire between a pair of adjustable rollers before cutting sections and forming U-shaped staples. An elongated cylindrical cam mounted for rotation with the drive shaft is provided with four spaced peripheral cam grooves for cam rollers to control movement of various parts in timed relationship. A fixed jaw head is provided and the staple former includes a movable die head with a slidable plunger. Material to be stapled is firmly clamped between the heads, which together with the plunger cooperate to drive a staple through the material and deflect the prongs inwardly. A plunger slidably carried in the fixed jaw head then moves to effectively clinch the prongs. This latter plunger will move beyond the face of the fixed jaw head and eject clinched or loose staples in case an operator fails to supply material to be stapled. The inventor claims that high operating speeds are possible since the heads remain separated for approximately 92% of the time required to complete one operating cycle, which occurs during one revolution of the cam. The drive shaft may be connected to any suitable source of power. (Owner) National Urn Bag Co., Inc., 3408 Northern Blvd., Long Island City, N. Y. Group 35--79. Reg. No. 9,158.

PAT. 2,385,392. Crewless glider. Patented Sep 25, 1945. (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757.)
Crewless glider will automatically follow a tow plane. A rigid tow bar is connected to tow plane and glider by a pair of universal joints. The universal joint between bar and glider is mounted for rotation within a tube which is rotatably mounted inside nose of glider. Rudder and elevator of glider are connected by pairs of cables to transverse mountings on rear end of tow bar. These cables are actuated in response to changes in angular relationship between tow bar and glider to vary the control surfaces of rudder and elevator. Ailerons of glider are connected by cables to the ends of a pair of horns which are mounted for rotation with the tube inside glider nose. When plane banks, tow bar rotates, causing tube to rotate and actuate ailerons. Modification shown. (Owner) L. W. Van Dusen, 2706 Lytton St., San Diego 10, Calif. Group 37--21--22. Reg. No. 9,159.

PAT. 2,431,847. Map projection device. Patented Dec 2, 1947.
By means of this device a portion of the surface of a curved map may be projected in exact scale and proportion so that a navigation course, such as a Great Circle course, may be determined or followed. The device is a transparent globe (upon which a map is reproduced) mounted for rotation within a box having an upper ground glass surface. A source of light adjacent one side of the globe is directed diametrically through the globe glass which serves as a viewing screen for a sharp enlarged image of a selected small portion of the globe. (Owner) Van Dusen Engineering Company, 2706 Lytton St., San Diego 10, Calif. Group 39--13. Reg. No. 9,160.

PAT. 2,429,405. Knife. Patented Oct 21, 1947.
The blade of this butcher knife is designed so that the forward end may be used for slicing and the rear end used as a chopper to chop bone or gristle. The blade forwardly of the handle is comparatively thick and wide to provide a broad chopper having an abruptly tapered convex cutting edge. The thickness and width of the chopper decreases and merges with the long, narrow, comparatively thin slicing end of the blade. The cutting edge of the chopper portion gradually decreases from an abrupt taper and merges into the thin tapered cutting edge of the slicing end. A modification shows a chopper blade for attachment to conventional butcher knives. (Owner) Clarence A. Dringman, c/o Ira Le Master, Box 21, North Platte, Nebr. Group 33--51. Reg. No. 9,161.

PAT. 2,432,421. Directional control for bombs. Patented Dec 9, 1947.
This patent relates to a method for automatically controlling the trajectory of an aerial bomb after it has been released. The bomb shown includes a radio receiver (responsive to carrier waves) and mechanism which changes the direction of travel from vertical to approximately horizontal when the angle of the bomb fin is altered. A bomb dropped from a plane is thus directed toward the side rather than on top of a vessel or similar target. (Owner) John H. Hemrighous, 1029 Wenonah Ave., Oak Park, Ill. Groups 33--12; 36--61. Reg. No. 9,162.

DES. PAT. 147,934. Cuff link. Patented Nov 18, 1947.
Face of one link member has representation of a skull, and face of smaller link has crossbones. (Owner) Theodore F. Strub, 2414 Lawrence Ave., Chicago 25, Ill. Group 34--51. Reg. No. 9,163.

PAT. 2,430,522. Double worker drill, reamer, and countersink. Patented Nov 11, 1947.
A drill assembly for use in metal working, which may be connected with any electric or air power plant. The motor is mounted on an adjustable frame and has a vertical drive shaft with a chuck at end to receive a drill, reamer, or countersink. Vertical L-shaped carriers are adjustably mounted on the frame for additional drills, reamers, or countersinks. The arm of each carrier is formed with a vertical bearing for a vertical shaft which carries a chuck on its lower end. The motor drive shaft carries a pinion in mesh with a pinion on the end of a horizontal shaft which extends through a transverse bore in each of the carriers. Pinions adjustably spaced along the horizontal shaft and held in position by set screws mesh with pinions mounted on the tops of the shafts of the carriers. (Owner) Alex Melniczak, 1717 South 6th St., Camden, N. J. Group 35--43. Reg. No. 9,164.

PAT. 2,431,543. Condiment shaker. Patented Nov 25, 1947.
A combination salt and pepper shaker designed for kitchen use. A container is vertically divided into two noncommunicating open-top compartments. One detachable sifter top has perforations for both compartments. A perforated valve plate is slidable over the upper surface of sifter top by means of a projecting finger piece. When valve plate is in normal position perforations in one of its sides and one side of sifter register to dispense contents from one compartment. When valve plate is pushed inwardly perforations in the opposite sides of valve and sifter are brought into registry to dispense contents from other compartment. (Owner) Robert R. Collins, P. O. Box 855, Weed, Calif. Groups 32-29--62; 34--41; 40. Reg. No. 9,165.

Register of Patents (contd)

PAT. 2,431,447. Sharpener or pointer for pencils and the like. Patented Nov 25, 1947.
This invention provides a pencil sharpener which utilizes a manually operable pencil-sharpening device equipped with a housing structure to mechanize and "fool proof" the pointing or sharpening operations. The sharpener head can be readily replaced. Shavings are collected in a removable housing. The article being pointed or sharpened will not be marred during the operation. (Owner) Theodore T. Anderson, 4614 South Ashland Ave., Chicago, Ill. Group 33--51. Reg. No. 9,166.

PAT. 2,430,672. Receptacle anchor. Patented Nov 11, 1947.
An anchor for garbage or trash cans. Comprises an iron post having pointed end for driving into ground and a cross bar for anchoring the post under ground or in concrete. A guard is mounted near top of post consisting of a metal strap bent to partly encircle side of can. The handle on one side of can slips over end of the post. A sectional post may be used for adjustment to different height cans. (Owner) Gilman P. Gandrud, Glenwood, Minn. Group 33--24. Reg. No. 9,167.

PAT. 2,431,171. Mailbox. Patented Nov 18, 1947.
The bottom of mailbox is formed by two hingedly mounted panels with downturned flanges. These panels are mounted on parallel rocker shafts which are operated by hand cranks on outside of box for removing mail. Mail is pushed upward between the panels, which swing upwardly and outwardly and drop by force of gravity to hold the mail in jaw-like grip within the box. To remove the mail the cranks are operated, the panel jaws open, and the mail drops out. Top cover permits insertion and removal of mail in ordinary manner if mechanism becomes inoperative. (Owner) Robert A. Gauldin, Box 7016, Houston 8, Tex. Group 33--59. Reg. No. 9,168.

DES. PAT. 147,805. Double-breasted coat. Patented Nov 4, 1947.
A sack coat in which the overlapping front portions have two rows of buttons arranged in pairs. The lapels on the overlapping portions meet in the vertical center of the coat and terminate in horizontal lines above the upper pair of buttons. (Owner) John L. McGeary, Address correspondence to Munn, Liddy, Glascom & Rich, International Bldg., 1319 F Street, N. W., Washington 4, D. C. Group 23--11--31. Reg. No. 9,169.

PAT. 2,429,756. Bread slice halving device. Patented Oct 28, 1947.
Device used to re-slice slices of bread of ordinary thickness, forming thin slices suitable for sandwiches. A narrow casing having a wide base for holding it in upright position is provided with a cavity having vertical guide slits for a knife in the ends of the casing. A removable holder for a slice of bread comprises two opposed rigid sheets hinged together at the bottom. Holder with slice placed therein is inserted in casing with means in casing and holder cooperating to properly center holder with sides held apart in casing. Top of holder is pressed together by operator. The usual knife is used for the re-slicing operation. Modifications shown. (Owner) Miner L. Hartmann, 300 South Canon Drive, Beverly Hills, Calif. Groups 33--73; 39--81; 40. Reg. No. 9,170.

Patents Dedicated to the Public

The following patents owned by The Cleveland Twist Drill Company of 1242 East 49th St., Cleveland 14, Ohio, have been dedicated to the people of the United States of America by instruments recorded in the United States Patent Office. The instruments read in part as follows: "...does hereby assign, transfer, and dedicate to the People of the United States of America, the entire right, title, and interest in and to the said invention and Letters Patent for their free use thereof."

PAT. RE. 19,182. Drill and like implement and method of making same. Reissued May 29, 1934. (Original Pat. 1,847,382; dated Mar 1, 1932) Group 33--51.

PAT. 1,887,372. Cutting and forming tools, implements, and the like. Patented Nov 8, 1932. Group 33--51.

PAT. 1,887,373. Reamer and the like. Patented Nov 8, 1932. Group 33--51.

PAT. 1,887,374. Drill. Patented Nov 8, 1932. Group 33--51.

PAT. 1,977,845. Cutting and forming tool, implement, and the like and method of making same. Patented Oct 23, 1934. Group 33--51.

The five patents listed above relate to a process of making a composite drill having primary and secondary cutting edges. Particularly adapted for forming holes in materials of a hard or abrasive nature. The body of the tool is formed of an alloy or other material which is susceptible to heat treatment. The working parts are formed of a hard metal alloy. The working and body parts are formed by casting, grinding, etc., and then secured together. The attaching surfaces are heated to a brazing temperature. The brazing metal is applied to joints between body and working parts for hardening body and providing a secondary cutting edge.

TRANSLATIONS

Items noted below are available at the prices quoted, from the translating service only. O.T.S. does not undertake to edit the reports nor does it accept the responsibility for the accuracy of the translations.

PB L 869-T. BENTWISCH. "Synol synthesis" (synthetic alcohols). (Translation of PB 869) (Transervice Translation 16) Apr 1947. 2 p. Available from Transervice, Box 647, Kingsport, Tenn., $2.00
For abstract of original German article, see this Bibliography, vol. 1, p. 48.

PB L 43541-T. I. G. FARBENINDUSTRIE A. G. Application of Atephan. (Translation of PB 43541) (Frames 51-61 of PIAT Microfilm Reel C 51, PB 13094) 1947. 17 p. Available from Consultants Bureau, 153 West 33rd St., New York 1, N. Y., $5.00
For abstract of original German article, see this Bibliography, vol. 3, p. 469.

PB L 43538-T. I. G. FARBENINDUSTRIE A. G. Mowilith dispersion for paints. (Translation of PB 43538) (Frames 34-44 of PIAT Microfilm Reel C 51, PB 13094) 1947. 19 p. Available from Consultants Bureau, 153 West 33rd St., New York 1, N. Y., $5.00
For abstract of original German article, see this Bibliography, vol. 3, p. 469.

PUBLICATIONS ISSUED

BY

OFFICE OF TECHNICAL SERVICES

PB L 81027. ADAMS, D. A. W. and others. I. G. Farbenindustrie: The manufacture of miscellaneous naphthalene intermediates. (BIOS Final Rept 1152, Item 22). n. d. 133 p. Price: Mimeo-$3.75

The manufacture of naphthalene intermediates at the various I. G. plants have been described in BIOS Final Reports 986 and 1157. The present report covers the dyestuffs intermediates not already reported in those reports. The compounds are dealt with under the following headings: (1) Naphthalene sulfonic acids; (2) hydroxynaphthalenes and their sulfonic acids; (3) dihydroxynaphthalenes, their sulfonic acids, and derivatives; (4) naphthylamine sulfonic acids; (5) dinitro- and diamino - naphthalenes and their sulfonic acids; (6) aminonaphthols and their sulfonic acids and derivatives (derivatives of J-acid, Gamma acid and of miscellaneous aminonaphthols); and (7) miscellaneous naphthalene derivatives. Appendix 1 lists reports which were submitted to the Wissenschaftlicher Zetko-Austausch.

PB L 80346. ADAMS, D. A. W. and others. I. G. Farbenindustrie, A. G.: Manufacture of thioindigoid dyestuffs and their intermediates at Hoechst and Mainkur. (BIOS Final Rept 1156, Item 22). n. d. 29 p. Price: Mimeo-$1.00

The information on thioindigoid dyestuffs and their intermediates contained in this report is additional to that contained in the following BIOS Final Reports: BIOS Final Report 986, "Manufacture of intermediates for dyestuffs at Griesheim, Hoechst, Ludwigshafen, Mainkur and Offenbach," PB 77764, v. 6, p. 189, this Bibliography; BIOS Final Report 983, "Manufacture of thioindigoid and sulfur dyestuffs at Hoechst and Mainkur, PB 79226; and BIOS Final Report 1155, "Manufacture of sulfur dyestuffs and their intermediates at Mainkur," PB 79309.

PB L 75887. BELL, R. L. and others. The design and operation of German telephone exchange equipment. (BIOS Final Rept 695, Item 7). Jan 1946. 81 p. Price: Mimeo-$2.25

This report records new developments in the years immediately preceding the war and during the war years. A general connected picture of up-to-date practice and performance is included both as a background and to allow comparison of the important features with practice in allied countries. The report contains illustrations, sketches and photographs.

PB L 80403. BLAYLOCK, P. W. and ANDERSON, A. H. Vinyl acetate vapour phase process. (BIOS Final Rept 1112, Item 22). Nov 1945. 22 p. Price: Mimeo-$0.75

This report describes the vapor phase process for the production of vinyl acetate at I.G. Höchst and at Dr. Alexander Wacker, Burghausen. Both processes are similar, the Höchst procedure having been based upon Burghausen patents. The reaction systems and distillation procedures are described and illustrated by flowdiagrams. The section on the Höchst process includes the preparation of the catalyst and start-up procedure. Several drawings illustrate the catalyst preparation. Production at Burghausen amounts to 200 tons per month of pure vinyl acetate. The Höchst plant has been enlarged and modernized and has capacity for 700 tons per month.

PB L 79582. BRUNNRIT, D. German acetylene chemical industry. Methyl vinyl ether. (BIOS Final Rept 1292, Item 22). Apr 1947. 12 p. Price: Mimeo-$0.50

The report describes the production of methyl vinyl ether at I. G. Ludwigshafen. Acetylene reacts smoothly with anhydrous methanol in the presence of anhydrous caustic potash at a temperature of 150-160° C, according to the following reactions:

$$CH \equiv CH + CH_3OK \longrightarrow CH_3O \cdot CH \equiv CHK$$

$$CH_3O \cdot CH = CHK + CH_3OH \longrightarrow CH_3O \cdot CH = CH_2 + CH_3OK$$

In order to keep the methanol in the liquid phase, the reaction is carried out under a pressure of 20-22 atm. abs. To minimize the dangers from the explosive decomposition of acetylene under the reaction conditions, nitrogen is added to the system, the proportion of nitrogen present never allowed to fall below 40%. Methyl vinyl ether is recovered as a 95% azeotrope with methanol. Further purification is effected by counter current washing with cold water. A description is given of the plant and process. A flowdiagram, cost sheet and labor requirements are included.

PB L 86250. KIRKMAN, NORMAN B. Determination of statistical control and related factors in the performance of breaking strength testing of fabrics. (QM Textile Series Rept 26). Sep 1946. 11 p. Price: Mimeo-$0.50

For abstract see under "Textiles and Textile Products" in this issue of the Bibliography.

PB L 85201. PEILDEN, G. B. R. High speed Schlieben camera for observation of flame travel. (BIOS Final Rept 11, Item 9). n. d. 8 p. Price: Mimeo-$0.25

This high speed camera has operated at speeds up to 25,000 pictures per second. Intermittent spark illumination is used in conjunction with a simple rotating drum camera. This report discusses the scope of the apparatus and describes the optical arrangement, the electric circuits, and the construction of the discharge tube. Results and recommendations are given.

PB L 75851. GAVIN, M. R. and others. High frequency heating. (BIOS Final Rept 866, Item 1, 7, 9). Jun 1946. 33 p. Price: Mimeo-$1.00

This report contains a survey of activities in the field of high frequency heating of German industry and it has been compiled from information gained at eighteen targets visited. It deals chiefly with work at radio frequencies and is not concerned with the use of rotating machines. Dielectric heating had been experimented with in many fields such as wood gluing; drying of timber, cigarette manufacture; plastics heating; delousing and food processing. Only wood gluing for aircraft and delousing in soldiers' uniforms had been applied on any scale.

PB L 81623. GIBSON, J. H. and others. Design and production of valves, cocks, sluice and weir gates and screen raking machines in Germany. (BIOS Final Rept 1319, Item 11). Feb-Mar 1946. 79 p. Price: Mimeo-$2.25

This report covers investigation of the design, manufacture and in some cases the application and use of valves, cocks, etc. for steam, water, air, and oil. Attention was also given to sluice gates and spillway or weir gates. With certain exceptions, e.g. large sluice gates, it may be fairly said that German designs are, on the whole, backward, no example of any new or original approach to valve problems of any kind having been noted. 12 detailed reports on visits to manufacturing firms and 4 detailed reports on visits to power stations are given. The text is supplemented by illustrations and drawings.

PB L 79563. GRAF, ERNST G. Graphical representations of gas producer processes. May 1947. 20 p. Price: Mimeo-$0.75

W. W. Ostwald's "Contributions to Graphic Combustion Technique" Spamer edition, Leipzig 1920, in which the conditions encountered in gas producer processes were shown graphically using triangular coordinates, has been applied in the development of a gasification trapezoid, based on the four reactions of carbon with air and steam which determine all possible gasification operations: (A) combustion with air (gasification to CO_2); (C) gasification with water to CO and H_2; and (D) gasification with air to CO.

OTS Publications (contd)

PB L 78240. HUNTER, W. German acetylene chemical industry. Manufacture of acetic anhydride. (BIOS Final Rept 1050, Item 22). Feb 1947. 103 p. Price: Mimeo-$3.00

Acetic anhydride manufacture in Germany used either acetaldehyde or acetic acid as the starting material. The oxidation of acetaldehyde to acetic acid was normally accomplished at 70° C with a manganese acetate catalyst, but if a mixture of copper and cobalt acetates were used, the oxidation could be carried out at 40° C - 50° C and acetic anhydride could be isolated from the oxidation product. This observation led to an industrial method for the preparation of mixed acetic acid - acetic anhydride which was developed by A. G. für Stickstoffdünger at Knapsack. The conversion of acetic acid to acetic anhydride was by far the most popular method in Germany with Alexander Wacker, G.m.b.H. of Burghausen being the principal producer. Flow diagrams illustrate both processes. A description of plant equipment is included together with process data, and material and power requirements. A translation is also given of a report by Dr. Platzer and Dr. Vornehm of Burghausen on the catalytic cracking of acetic acid.

PB L 79296. IVORY, W. Tungsten carbide research in Germany. (BIOS Final Rept 925, Item 21, 22). n. d. 102 p. Price: Mimeo-$3.00

This report contains the results of a detailed interrogation of Dr. Dawihl who was head of Osram's Research Department. By agreement with Krupps this Laboratory carried out all hard metal research on behalf of the Widia organization and as such was the most important Hard Metal Research Laboratory in Germany. The report gives a general survey of the Research Programme of the Laboratory during the war years and traverses the latest theories on the fundamental metallurgy of hard metal as developed by Dr. Dawihl. It describes his experiments to relate the practical performance of hard metal with metallurgy and discusses the effect of crystal formation and shape on the physical properties. A technique of coating steel with a thin hard metal skin is described and the composition of the metal is given. Descriptions of the processes of making boron carbide and titanium boride are given and a very brief résumé of the work done on sintered iron and steel. Part III deals with the practical application of Laboratory Research to commercial practice and gives brief descriptions of methods of manufacture, specifications and a detailed costing of each operation. Appendixes contain lists of reports issued by the laboratory and a description of a furnace for tungsten carbide production. Drawings included.

PB L 78244. MARTIN, H. and SHAW, H. Developments in methods and materials for the control of plant pests and diseases in Germany. (BIOS Final Rept 1095, Item 22). Mar 1947. 96 p. Price: Mimeo-$2.50

In May and June, 1946, certain industrial organizations and research stations in the British and American zones of Germany and in Berlin were visited for the purpose of collecting information on developments in plant protective materials and methods during the war period. Attention was given only to developmental research and to field use, and no investigation was made into the manufacture of insecticides and fungicides. In all, sixteen targets were visited including two research stations in Switzerland. This document includes several reports on the manufacture and tests of certain chemical compounds and a list of German technical literature on plant pathology.

PB L 78204. MONBIOT, M. F. and others. Investigation of the German regenerated cellulose film industry. (BIOS Final Rept 858, Item 22, 31). 1946. 124 p. Price: Mimeo-$3.50

A study was made of the production and practice at the following German firms: (1) Kalle & Co., A. G., Wiesbaden - Biebrich; (2) Wolff & Co., Kommandit - Gesellschaft auf Aktien; (3) Langheck and Company, Esslingen, A. N. Wurtemberg; (4) J. P. Bemberg A. G., Wuppertal - Oberbarmen; (5) Goebel A. G., Darmstadt; (6) Windmoeller & Hoelcher, G.m.b.H., Machinenfabrik, Lengerich/Westfalen; (7) Fischer & Krecke G.m.b.H., Maschinenfabrik, Bielefeld; and (8) Werner und Pfleiderer, Maschinenfabriken, Stuttgart.

PB L 78242. MORLEY, R. J. The Winterhall-Schmalfeldt process for the manufacture of synthesis gas at Lutzkendorf. (BIOS Final Rept 1142, Item 30) n. d. 41 p. Price: Mimeo-$1.25

A description is given of the process, with sketches and flow sheets. The process consists essentially of gasification of dry brown coal dust in the entrained state; the heat of reaction is added by burning producer gas, storing heat in a regenerator and then abstracting it by recirculating saturated synthesis gas, with also the addition of oxygen at various points; sensible heat in the final gases is used to dry and disintegrate the raw brown coal. The producer gas is made by gasifying dry brown coal dust in the entrained state, using air with a little steam. The processes are now technically established, but dust losses are high and synthesis gas contains substances deleterious to Fischer-Tropsch catalyst, although not to hydrogenation of oil and tar; the plant is very large for the output and capital costs are high. In its present state of development the process appears to be less economic than the alternative Winkler process, operating under similar circumstances.

PB L 78214. SANITER, FRANK H. German open hearth furnace refractories (Appendix no. 9 to CIOS Report XXXII-119). (CIOS Rept XXXIII-57, Item 31). Jun 1945. 20 p. Price: Mimeo-$0.75

Miscellaneous information was obtained during visits to the Mannesmann Works, Huckingen. Bochumer Verein and Krupps with regard to the refractories used in steel plants. Particular attention was paid to "all-basic" construction, in which Austrian brickmakers in collaboration with German steel firms, had made considerable progress before the war. Addenda to this report present analyses of samples of chrome-magnesite and other bricks obtained from open hearth furnaces. Several sketches are included.

PB L 77712. TOPP, N. E. The manufacture of chlorates and perchlorates at Bitterfeld. (BIOS Final Rept 1200, Item 22). Mar 1946. 34 p. Price: Mimeo-$1.00

This report describes the manufacture of potassium chlorate and perchlorate and includes cell construction and operation, composition of cell liquor, and consumption of raw materials and services. Flow diagrams are included. The information on the chlorate plant is based upon a plant inspection on March 18, 1946, supplemented by German process reports. Information on the perchlorate plant is derived entirely from German process reports.

PB L 75830. UMPLEBY, K. F. and others. Iron cored D.F. loops and manufacture of iron dust. (BIOS Final Rept 1203, Item 7, 21). May 1946. 33 p. Price: Mimeo-$1.00

This report from Germany covers investigation of the design and development of iron-core D. F. loops and the manufacture of powdered iron. Appendix A - Translation of a German report on magnetic properties of powder cores. Appendix B - Report on magnetic material; Appendix C - Report on the properties of a nickel-free dust core material with high permeability made according to the Japanese Sendust-material technique; and Appendix D - Translation from Siemens Zeitschrift D.F. Loop aerial with iron dust core. In all six targets were visited and detailed description given. Two illustrations show production of radio screw cores at Meitingen.

PB L 78681-T. VORNHOLT, J. E. (tr.). Glass yarns as an insulating material for the electrical industry. Translation. Apr 1946. 84 p. Price: Mimeo-$2.25

This is a complete translation of the German original (PB L 78681) which surveys the development of glass yarns, their production and properties (glass fiber covered wires, glass fiber cloth, glass fiber wound motors) and their use in electrical industry. A bibliography and a survey of patents are attached. Eleven figures are included.

PB L 86252. WHITE, W. LAWRENCE and SIU, RALPH G. H. Resin impregnation of cotton fabrics for prevention of microbiological decay. (QM Textile Series Rept 29; Microbiological Series Rept 5). Jun 1946. 8 p. Price: Mimeo-$0.50

For abstract see under "Textiles and Textile Products" in this issue of the Bibliography.

U. S. GOVERNMENT PRINTING OFFICE O 1948